



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605



Date: 7/21/2017

Subject: Review of Region 5 Data for Mid America Steel Drum, Inc.

To: RCRA, LCD, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

From: Troy Strock, Chemist
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with the EPA QA/G-8 *Guidance on Environmental Data Verification and Data Validation* and the U.S. EPA Region 5 RMD QMP, CRL performs data verification on all the data generated internally. CRL does not perform data validation or quality assessment procedures.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X  7/24/17

Please contact the analyst with any technical report issues, Robert Thompson at (312)-353-9078 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: Mid America Steel Drum, Inc.

Data Coordinator and Date Transmitted

Analyses included in this report:

SVOA solvent dilution

SVOA water by micro-extraction



Environmental Protection Agency Region5 Chicago Regional Laboratory

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RCRA, LCD, US EPA Region 5
77 West Jackson Boulevard
Chicago IL, 60604

Project: Mid America Steel Drum, Inc.
Project Number: MASD 05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

ANALYSIS CASE NARRATIVE

Analyst Phone number: 312.353.8363

General Information

25 waste samples were received on 5/05/2017 for preparation by the toxicity characteristic leaching procedure (TCLP) and analysis of TCLP extracts for semivolatile organic chemicals. The designated analyst for these samples was Troy Strock, and he can be reached at (312) 353-8362. Method 1311 provides holding times from sample collection to TCLP preparation and from TCLP preparation to extraction for semivolatile organics in order to demonstrate a waste is non-hazardous, and these holding times were not met for some of the field samples. Data for samples prepared past these method-defined holding times cannot be used to demonstrate samples are non-hazardous, but any TCLP extract concentrations exceeding the regulatory limits may be used to demonstrate samples are hazardous. Refer to the 'quality controls' section below for more details.

Samples were prepared using Chicago Regional Laboratory (CRL) Standard Operating Procedure (SOP) GEN019 V5 (based on SW-846 Method 1311). Most TCLP extracts were prepared by equilibrium liquid-liquid extraction SOP MS026 V2 (based on SW-846 reference methods 3511 and 8270D). TCLP extracts (or fractions thereof) that were immiscible with water or were otherwise very viscous were prepared by solvent dilution. The solvent dilution procedure (based on SW-846 reference method 3580A) is not included in MS026 V2, but the procedure used is summarized in pen and ink change #10389, which is included in the data package. TCLP extracts were analyzed for the subset of semivolatile organic chemicals listed in 40 CFR Part 261.24, and the data were evaluated against the action levels listed there. Data review was performed according to the guidelines described in CRL SOP GEN010 Version 2.

Supporting data for work orders 1705003 and 1705004 can be found in the folder for work order 1705002.

Sample Analysis and Results

TCLP extracts that were not miscible with water (laboratory sample IDs 1705002-02, -08, -09, 1705003-02, and 1st filtrates of 1705002-04 and -12) or were very viscous (laboratory sample IDs 1705003-01 and -03) were prepared by solvent dilution in batch B 17F036. The rest of the TCLP extracts were prepared by equilibrium liquid-liquid extraction in batches B17E048 and B17E049.

None of the semivolatile organic TCLP target analytes were measured above the regulatory levels listed in 40 CFR Part 261.24, Table 1, in any of the samples submitted for this project.

3,4-methylphenol (synonyms: m-cresol and p-cresol, Chemical Abstracts Service numbers 108-39-4 and 106-44-5) were measured above the reporting limit (RL) in TCLP extracts of laboratory sample IDs 1705004-07,



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1705004-08, 1705004-09, and 1705004-10, but their concentrations were well below the regulatory limit. 2-methylphenol (synonym: o-cresol, Chemical Abstracts Service number 95-48-7) was present in the 1st filtrate of laboratory sample ID 1705002-08, but the concentration was just under the reporting limit of 110 mg/L assigned to this analyte by solvent dilution, which is also less than the regulatory level.

For the equilibrium liquid-liquid micro-extraction procedure, some samples are reported from dilutions due to the nature of the sample matrices tested, which raised the corresponding RLs for some target analytes to above their respective regulatory limits. For the solvent dilution procedure, RLs were on the order of 100 mg/L (nominal) for all target analytes except 3+4-methylphenol (200 mg/L) and pentachlorophenol (250-2500 mg/L), which are above the TCLP regulatory limits for many target analytes.

Results for TCLP extracts of two samples, 1705002-04 and 1705002-12, are derived from separate analysis of the 1st and 2nd filtrates, which were not miscible with one another. Results from analysis of the individual phases of these samples are reported as separate laboratory sample IDs. RLs assigned to target analytes in these two field samples are volume weighted averages of the RLs assigned for separate analysis of the individual phases. Surrogate recoveries for these samples are reported in the analytical results for the individual phases.

The data reported herein meet the requirements referenced in the SOP (s) used for sample preparation and analysis and any laboratory specifications stated in the FSAP, with exceptions noted in the quality control section below.

Quality Control

Please refer to the LIMS report for descriptive qualifiers added by analyte, which identify both the QC criteria that were not met and the expected impact on the reported data. The key at the end of the report provides a description of each qualifier code. Any target analytes or surrogates that did not meet the acceptance criteria listed in the report are also marked with a 'Q'. Below is a summary of the QC parameters that did not meet the acceptance criteria in the SOP.

Changes from the preliminary report:

This narrative was condensed and clarified with regard to:

- 1) The lack of an approved IDOC study completed for the solvent dilution preparation procedure prior to analysis of samples in preparation batch B17F036;
- 2) Reporting results for the 1st filtrate of laboratory sample ID 1705002-08 as the TCLP extract;
- 3) Non-conformances identified during TCLP preparation and analysis of TCLP extracts for semivolatile organics, recorded as Qualtrax ID #s 10652 and 10851 and referenced in this narrative.

TCLP preparation:

Laboratory sample IDs 1705002-03, 1705002-09, 1705003-01, 1705003-02, and 1705003-03 were treated as



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100% liquid samples with regard to TCLP preparation in spite of having dry solids contents > 0.5%. These samples filtered readily and were clear single -phase liquids, and no particulates remained on the filters from these samples after filtration, so extraction fluid determination could not be performed on these samples, which is required by the reference method prior to leaching the solid fraction.

Laboratory sample ID 1705002-08 was a viscous single -phase opaque liquid that filtered very slowly, and although the solids content was low, it was still > 0.5% dry solids. Any solids remaining on the filter were incorporated in the pores of the filter and could not be separated from the filter material. Since 5 g of solids was not obtained during liquid -solid separation to use for the extraction fluid determination step in SW -846 Method 1311, the solid fraction of this sample could not be leached.

Laboratory sample ID 1705003-06 was a viscous single -phase opaque liquid that clogged the filter during liquid/solid separation step of TCLP preparation after about 50% of the initial sample passed through the filter and therefore generated a solid fraction. However, the solid fraction remaining in the filtration apparatus was a liquid that was difficult to quantitatively transfer from the filtration apparatus to a leaching vessel. Since the 1st filtrate of this sample contained no identifiable semivolatile organic TCLP target analytes, there was no indication that leaching and analysis of the solid fraction of this sample would have produced a regulatory exceedance.

Holding times:

According to SW -846 Method 1311, data generated from samples that exceeded holding times from sample collection to TCLP extraction (14 days for semivolatile organics) or TCLP extraction to preparative extraction (7 days for semivolatile organics) cannot be used to demonstrate a material is non -hazardous. All samples that exceeded these holding times are qualified in the report. Holding time exceedances are documented in a non-conformance report, Qualtrax ID # 10851.

Instrument performance check:

For samples preceded by an instrument performance check with a pentachlorophenol tailing factor >2, the pentachlorophenol RL was raised in the samples to the CCV concentration, at which level it was qualitatively identifiable in both CCVs bracketing the samples. An additional qualifier is added for pentachlorophenol when it did not meet the CCV criteria. All other acidic and basic target analytes were qualitatively identifiable and were within $\pm 30\%$ of their expected concentrations in a standard analyzed at the (nominal) RL in the same 12-hour interval except in one case for 2,4,6-trichlorophenol (measured concentration was 30.4% low). The 2,4,6-trichlorophenol RL was qualified in samples that referenced the preceding instrument performance check

Continuing calibration verification (CCV):

Target analytes are qualified in samples if they were bracketed by a CCV that did not meet the SOP acceptance criteria. Pentachlorophenol data was qualified frequently in samples for this project due to not meeting the CCV criteria.



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Chromatographic resolution of structural isomers:

3- and 4-methylphenol are not chromatographically separable under the conditions used for this analysis, so they are reported as a combination of these coeluting isomers. In the matrix spike QC samples B 17F036-MS3 and -MSD3, 2,4,6-trichlorophenol and 2,4,5-trichlorophenol were not chromatographically separable and appeared as one chromatographic peak.

Internal standards:

Target analytes are qualified in samples when their associated internal standards were not within 50-200% of the preceding mid-point initial calibration standard or CCV standard (whichever was analyzed more recently).

Reporting limit (RL) verification and blank spike (LCS) batch QC samples:

Target analytes that were qualitatively identifiable but were not recovered within the acceptance range at the (nominal) target analyte RL or in the LCS are qualified in all samples in the preparation batch

NOTE: An initial demonstration of capability study has not been completed for the solvent dilution preparation procedure, which is how the laboratory establishes default target analyte RLs for a preparation and analysis procedure. In preparation batch B 17F036, all target analytes except pentachlorophenol were qualitatively identifiable and recovered acceptably in the RL verification QC sample B 17F036-MRL2 (prepared at 50 ug/L nominal concentration). Pentachlorophenol was qualitatively identifiable in the LCS samples in this batch (B17F036-BS1 and -BSD1, prepared at a nominal concentration of 250 ug/L), but recovery was below the lower control limit of 70% listed in pen and ink change 10389. The nominal RL assigned to pentachlorophenol in the field samples in this preparation batch was set to 250 ug/L except when the pentachlorophenol tailing factor criteria was not met in the instrument performance check, in which case the nominal RL was set to 2500 ug/L (equivalent to the CCV level).

Matrix spike QC samples:

Target analytes are qualified in source samples when they are not recovered within their compound -specific acceptance ranges, unless their recoveries are above the upper control limit and they are not found in the source sample.

NOTE: Pentachlorophenol was not recovered in matrix spikes of laboratory sample ID 1705002-05 (reported as B17E049-MS1/MSD1) or 1705003-01 (reported as B 17F036-MS3/MSD3), and nitrobenzene was not recovered in the matrix spike of 1705002-02 (reported as B 17F036-MSD1). These target analytes were not found in the source samples, so their RLs were raised to the (nominal) matrix spike level in the source samples and qualified 'rejected' to indicate they cannot be reliably reported as not present at the prepared MS/MSD concentration.

Surrogates:

Surrogate recoveries are evaluated by sample. If more than 1 of 3 acid fraction surrogates (2-fluorophenol,



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phenol-d5, and 2,4,6-tribromophenol) or neutral fraction surrogates (nitrobenzene-d5, 2-fluorobiphenyl, and terphenyl-d14) does not meet the acceptance criteria, the associated target analytes are qualified. If recovery of pyridine-d5 did not meet the acceptance criteria, the data for pyridine is qualified. If surrogate recovery is above the upper acceptance limit and none of the associated target analytes are found in the sample, no data qualifiers are added.

NOTE: No surrogate recoveries are reported for laboratory sample IDs 1705002-03 or 1705003-06 due to co-extracted non -target matrix interferences that prevented the extracts from being successfully analyzed at the default extract volume in the SOP.

Preparation batch B17F036 initial demonstration of capability and non-conformances:

An initial demonstration of capability (IDOC) that complies with CRL Quality Management Plan requirements has not been completed for the solvent dilution preparation procedure at the time these samples were analyzed. No non -conformance report was created, because CRL laboratory management and the project manager were made aware of this through pen and ink change #10389. Pentachlorophenol performance was variable depending on the sample, but performance of the other target analytes generally met expectations.

Surrogate recoveries in QC sample B 17F036-MS3 were around a factor of 10 higher than in the field sample 1705003-01 and matrix spike duplicate B 17F036-MSD3, consistent with having been spiked with ten times more of the surrogates spiking solution than the field sample or matrix spike duplicate. Target analyte recoveries in B 17F036-MS3 and -MSD3 were similar, and non -target analytes in these samples were consistent between these replicates, which supported the assertion that high surrogate recovery in this QC sample was due to a preparation error. The non-conformance is documented in Qualtrax ID # 10851.

QC sample ID B 17F036-MS1 is not reported due to a suspected preparation error (surrogates were recovered acceptably, but no target analytes were identified in this QC sample). This non -conformance is documented in Qualtrax ID # 10851.



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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OCS-01	1705002-01	Other	May-04-17 12:55	May-05-17 07:50
OCS-02	1705002-02	Other	May-04-17 13:11	May-05-17 07:50
OCS-03	1705002-03	Other	May-04-17 13:35	May-05-17 07:50
OCS-04	1705002-04	Other	May-04-17 14:10	May-05-17 07:50
OCS-05	1705002-05	Other	May-04-17 14:23	May-05-17 07:50
OCS-06	1705002-06	Other	May-04-17 14:37	May-05-17 07:50
OCS-07	1705002-07	Other	May-04-17 14:50	May-05-17 07:50
OCS-08	1705002-08	Other	May-04-17 15:01	May-05-17 07:50
OCS-09	1705002-09	Other	May-04-17 15:12	May-05-17 07:50
OCS-10	1705002-10	Other	May-04-17 15:20	May-05-17 07:50
OCS-10 DUP	1705002-11	Other	May-04-17 15:20	May-05-17 07:50
OCS-11	1705002-12	Other	May-04-17 15:37	May-05-17 07:50
OCS-12	1705002-13	Other	May-04-17 15:50	May-05-17 07:50
1705002-04 1st Filtrate	1705002-14	Other	May-04-17 14:10	May-05-17 07:50
1705002-04 2nd Filtrate	1705002-15	Other	May-04-17 14:10	May-05-17 07:50
1705002-12 1st Filtrate 1st Phase	1705002-18	Other	May-04-17 15:37	May-05-17 07:50
1705002-12 1st Filtrate 2nd Phase	1705002-19	Other	May-04-17 15:37	May-05-17 07:50
1705002-12 2nd Filtrate	1705002-20	Other	May-04-17 15:37	May-05-17 07:50
CS-01	1705003-01	Other	May-04-17 11:48	May-05-17 07:50
CS-02	1705003-02	Other	May-04-17 12:31	May-05-17 07:50
CS-03	1705003-03	Other	May-04-17 12:35	May-05-17 07:50
CS-04	1705003-04	Other	May-04-17 13:02	May-05-17 07:50
CS-05	1705003-05	Other	May-04-17 13:12	May-05-17 07:50



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CS-06	1705003-06	Other	May-04-17 13:29	May-05-17 07:50
CS-07	1705003-07	Other	May-04-17 13:55	May-05-17 07:50
CS-08	1705003-08	Other	May-04-17 14:15	May-05-17 07:50
SFS08	1705004-07	Other	May-04-17 15:10	May-05-17 07:50
SFS09	1705004-08	Other	May-04-17 15:23	May-05-17 07:50
SFS10	1705004-09	Other	May-04-17 15:37	May-05-17 07:50
SFS10 Dup	1705004-10	Other	May-04-17 15:37	May-05-17 07:50



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Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

OCS-01 (1705002-01)

Matrix: Other

Sampled: May-04-17 12:55

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			0.13	mg/L	1	B17E048	May-15-17	Jun-09-17
2-Methylphenol	U			0.025	"	"	"	"	"
3+4-Methylphenol	U			0.049	"	"	"	"	"
Hexachloroethane	U			0.025	"	"	"	"	"
Nitrobenzene	U			0.025	"	"	"	"	"
Hexachlorobutadiene	U			0.025	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.025	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.025	"	"	"	"	"
2,4-Dinitrotoluene	U	(RL), UJ		0.025	"	"	"	"	"
Hexachlorobenzene	U			0.025	"	"	"	"	"
Pentachlorophenol	U			0.025	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.35		56.1%	20-71	"	"	"
2-Fluorophenol	0.45		72.3%	29-73	"	"	"
Phenol-d5	0.43	Q	69.2%	22-62	"	"	"
Nitrobenzene-d5	0.53		85.1%	42-90	"	"	"
2-Fluorobiphenyl	0.57		92.3%	40-93	"	"	"
2,4,6-Tribromophenol	0.63		102%	43-107	"	"	"
Terphenyl-d14	0.57		92.3%	59-111	"	"	"

OCS-02 (1705002-02)

Matrix: Other

Sampled: May-04-17 13:11

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			88	mg/L	10	B17F036	Jun-08-17	Jun-11-17
2-Methylphenol	U			88	"	"	"	"	"
3+4-Methylphenol	U			180	"	"	"	"	"
Hexachloroethane	U			88	"	"	"	"	"



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Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

OCS-02 (1705002-02)

Matrix: Other

Sampled: May-04-17 13:11

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrobenzene	Rejected	MI		220	mg/L	10	B17F036	Jun-08-17	Jun-11-17
Hexachlorobutadiene	U			88	"	"	"	"	"
2,4,6-Trichlorophenol	U			88	"	"	"	"	"
2,4,5-Trichlorophenol	U			88	"	"	"	"	"
2,4-Dinitrotoluene	U			88	"	"	"	"	"
Hexachlorobenzene	U			88	"	"	"	"	"
Pentachlorophenol	U	(CCV), (LCS), (MS), UJ		220	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	190		88.0%	70-130	"	"	"
2-Fluorophenol	220		102%	70-130	"	"	"
Phenol-d5	230		103%	70-130	"	"	"
Nitrobenzene-d5	1400	MI, Q	624%	70-130	"	"	"
2-Fluorobiphenyl	220		98.4%	70-130	"	"	"
2,4,6-Tribromophenol	220		99.2%	70-130	"	"	"
Terphenyl-d14	210		94.8%	70-130	"	"	"

OCS-03 (1705002-03)

Matrix: Other

Sampled: May-04-17 13:35

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U	(IS), UJ		6.5	mg/L	50	B17E048	May-15-17	Jun-09-17
2-Methylphenol	U	(IS), UJ		1.2	"	"	"	"	"
3+4-Methylphenol	U	(IS), UJ		2.5	"	"	"	"	"
Hexachloroethane	U			1.2	"	"	"	"	"
Nitrobenzene	U			1.2	"	"	"	"	"
Hexachlorobutadiene	U			1.2	"	"	"	"	"
2,4,6-Trichlorophenol	U	(IS), UJ		1.2	"	"	"	"	"
2,4,5-Trichlorophenol	U	(IS), UJ		1.2	"	"	"	"	"
2,4-Dinitrotoluene	U	(IS), (RL), UJ		1.2	"	"	"	"	"
Hexachlorobenzene	U			1.2	"	"	"	"	"
Pentachlorophenol	U			1.2	"	"	"	"	"



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Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

OCS-04 (1705002-04)

Matrix: Other

Sampled: May-04-17 14:10

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			4.3	mg/L	1	B17G006	Jul-07-17	Jul-10-17
2-Methylphenol	U			4.2	"	"	"	"	"
3+4-Methylphenol	U			8.0	"	"	"	"	"
Hexachloroethane	U			4.2	"	"	"	"	"
Nitrobenzene	U			4.2	"	"	"	"	"
Hexachlorobutadiene	U			4.2	"	"	"	"	"
2,4,6-Trichlorophenol	U			4.2	"	"	"	"	"
2,4,5-Trichlorophenol	U			4.2	"	"	"	"	"
2,4-Dinitrotoluene	U			4.2	"	"	"	"	"
Hexachlorobenzene	U			4.2	"	"	"	"	"
Pentachlorophenol	U			100	"	"	"	"	"

OCS-05 (1705002-05)

Matrix: Other

Sampled: May-04-17 14:23

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			1.3	mg/L	10	B17E049	May-26-17	Jun-11-17
2-Methylphenol	U			0.25	"	"	"	"	"
3+4-Methylphenol	U			0.50	"	"	"	"	"
Hexachloroethane	U			0.25	"	"	"	"	"
Nitrobenzene	U			0.25	"	"	"	"	"
Hexachlorobutadiene	U			0.25	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.25	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.25	"	"	"	"	"
2,4-Dinitrotoluene	U			0.25	"	"	"	"	"
Hexachlorobenzene	U			0.25	"	"	"	"	"
Pentachlorophenol	Rejected	(CCV), (MS)		6.2	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.36		57.2%	20-71	"	"	"
2-Fluorophenol	0.44		70.0%	29-73	"	"	"
Phenol-d5	0.38		60.8%	22-62	"	"	"
Nitrobenzene-d5	0.58	Q	93.2%	42-90	"	"	"
2-Fluorobiphenyl	0.56		90.0%	40-93	"	"	"



Environmental Protection Agency Region5 Chicago Regional Laboratory

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Project: Mid America Steel Drum, Inc.
Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

OCS-05 (1705002-05)

Matrix: Other

Sampled: May-04-17 14:23

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
2,4,6-Tribromophenol	0.48			76.4%		43-107	B17E049	May-26-17	Jun-11-17
Terphenyl-d14	0.54			85.6%		59-111	"	"	"

OCS-06 (1705002-06)

Matrix: Other

Sampled: May-04-17 14:37

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			1.3	mg/L	10	B17E049	May-26-17	Jun-11-17
2-Methylphenol	U			0.24	"	"	"	"	"
3+4-Methylphenol	U			0.49	"	"	"	"	"
Hexachloroethane	U			0.24	"	"	"	"	"
Nitrobenzene	U			0.24	"	"	"	"	"
Hexachlorobutadiene	U			0.24	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.24	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.24	"	"	"	"	"
2,4-Dinitrotoluene	U			0.24	"	"	"	"	"
Hexachlorobenzene	U			0.24	"	"	"	"	"
Pentachlorophenol	U	(CCV), UJ		0.24	"	"	"	"	"
Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.21			34.8%		20-71	"	"	"
2-Fluorophenol	0.41			67.6%		29-73	"	"	"
Phenol-d5	0.36			59.6%		22-62	"	"	"
Nitrobenzene-d5	0.42			68.4%		42-90	"	"	"
2-Fluorobiphenyl	0.48			78.8%		40-93	"	"	"
2,4,6-Tribromophenol	0.43			70.8%		43-107	"	"	"
Terphenyl-d14	0.50			81.6%		59-111	"	"	"

OCS-07 (1705002-07)

Matrix: Other

Sampled: May-04-17 14:50

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			0.13	mg/L	1	B17E048	May-15-17	Jun-10-17



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Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

OCS-07 (1705002-07)

Matrix: Other

Sampled: May-04-17 14:50

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
2-Methylphenol	U			0.025	mg/L	1	B17E048	May-15-17	Jun-10-17
3+4-Methylphenol	U			0.050	"	"	"	"	"
Hexachloroethane	U			0.025	"	"	"	"	"
Nitrobenzene	U			0.025	"	"	"	"	"
Hexachlorobutadiene	U			0.025	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.025	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.025	"	"	"	"	"
2,4-Dinitrotoluene	U	(RL), UJ		0.025	"	"	"	"	"
Hexachlorobenzene	U			0.025	"	"	"	"	"
Pentachlorophenol	U			0.025	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.49	Q	78.5%	20-71	"	"	"
2-Fluorophenol	0.50	Q	79.7%	29-73	"	"	"
Phenol-d5	0.42	Q	67.2%	22-62	"	"	"
Nitrobenzene-d5	0.65	Q	104%	42-90	"	"	"
2-Fluorobiphenyl	0.66	Q	106%	40-93	"	"	"
2,4,6-Tribromophenol	0.65		105%	43-107	"	"	"
Terphenyl-d14	0.65		104%	59-111	"	"	"

OCS-08 (1705002-08)

Matrix: Other

Sampled: May-04-17 15:01

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			110	mg/L	10	B17F036	Jun-08-17	Jun-11-17
2-Methylphenol	U			110	"	"	"	"	"
3+4-Methylphenol	U			210	"	"	"	"	"
Hexachloroethane	U			110	"	"	"	"	"
Nitrobenzene	U			110	"	"	"	"	"
Hexachlorobutadiene	U			110	"	"	"	"	"
2,4,6-Trichlorophenol	U			110	"	"	"	"	"
2,4,5-Trichlorophenol	U			110	"	"	"	"	"
2,4-Dinitrotoluene	U			110	"	"	"	"	"
Hexachlorobenzene	U			110	"	"	"	"	"



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Project Number: MASD-05-04-17
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Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

OCS-08 (1705002-08)

Matrix: Other

Sampled: May-04-17 15:01

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pentachlorophenol	U	(CCV), (LCS), UJ		260	mg/L	10	B17F036	Jun-08-17	Jun-11-17

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	200	77.2%	70-130	"	"	"
2-Fluorophenol	260	99.2%	70-130	"	"	"
Phenol-d5	280	105%	70-130	"	"	"
Nitrobenzene-d5	290	106%	70-130	"	"	"
2-Fluorobiphenyl	280	104%	70-130	"	"	"
2,4,6-Tribromophenol	330	124%	70-130	"	"	"
Terphenyl-d14	280	105%	70-130	"	"	"

OCS-09 (1705002-09)

Matrix: Other

Sampled: May-04-17 15:12

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			92	mg/L	10	B17F036	Jun-08-17	Jun-27-17
2-Methylphenol	U			92	"	"	"	"	"
3+4-Methylphenol	U			180	"	"	"	"	"
Hexachloroethane	U			92	"	"	"	"	"
Nitrobenzene	U			92	"	"	"	"	"
Hexachlorobutadiene	U			92	"	"	"	"	"
2,4,6-Trichlorophenol	U			92	"	"	"	"	"
2,4,5-Trichlorophenol	U			92	"	"	"	"	"
2,4-Dinitrotoluene	U			92	"	"	"	"	"
Hexachlorobenzene	U			92	"	"	"	"	"
Pentachlorophenol	U	(CCV), (LCS), (TF), UJ		2300	"	"	"	"	"

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	190	80.8%	70-130	"	"	"
2-Fluorophenol	200	85.6%	70-130	"	"	"
Phenol-d5	190	84.0%	70-130	"	"	"
Nitrobenzene-d5	240	103%	70-130	"	"	"



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Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

OCS-09 (1705002-09)

Matrix: Other

Sampled: May-04-17 15:12

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
2-Fluorobiphenyl	210			93.2%		70-130	B17F036	Jun-08-17	Jun-27-17
2,4,6-Tribromophenol	150	Q		63.6%		70-130	"	"	"
Terphenyl-d14	210			91.6%		70-130	"	"	"

OCS-10 (1705002-10)

Matrix: Other

Sampled: May-04-17 15:20

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			1.3	mg/L	10	B17E049	May-26-17	Jun-11-17
2-Methylphenol	U			0.25	"	"	"	"	"
3+4-Methylphenol	U			0.49	"	"	"	"	"
Hexachloroethane	U			0.25	"	"	"	"	"
Nitrobenzene	U			0.25	"	"	"	"	"
Hexachlorobutadiene	U			0.25	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.25	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.25	"	"	"	"	"
2,4-Dinitrotoluene	U			0.25	"	"	"	"	"
Hexachlorobenzene	U			0.25	"	"	"	"	"
Pentachlorophenol	U	(CCV), UJ		0.25	"	"	"	"	"

Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.30			48.0%		20-71	"	"	"
2-Fluorophenol	0.41			66.0%		29-73	"	"	"
Phenol-d5	0.37			60.4%		22-62	"	"	"
Nitrobenzene-d5	0.50			80.8%		42-90	"	"	"
2-Fluorobiphenyl	0.54			88.0%		40-93	"	"	"
2,4,6-Tribromophenol	0.52			83.6%		43-107	"	"	"
Terphenyl-d14	0.55			88.4%		59-111	"	"	"

OCS-10 DUP (1705002-11)

Matrix: Other

Sampled: May-04-17 15:20

Received: May-05-17 07:50

Sample Qualifiers: (H)



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Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

OCS-10 DUP (1705002-11)

Matrix: Other

Sampled: May-04-17 15:20

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			1.3	mg/L	10	B17E049	May-26-17	Jun-11-17
2-Methylphenol	U			0.25	"	"	"	"	"
3+4-Methylphenol	U			0.50	"	"	"	"	"
Hexachloroethane	U			0.25	"	"	"	"	"
Nitrobenzene	U			0.25	"	"	"	"	"
Hexachlorobutadiene	U			0.25	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.25	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.25	"	"	"	"	"
2,4-Dinitrotoluene	U			0.25	"	"	"	"	"
Hexachlorobenzene	U			0.25	"	"	"	"	"
Pentachlorophenol	U	(CCV), UJ		0.25	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.29		46.4%	20-71	"	"	"
2-Fluorophenol	0.40		63.6%	29-73	"	"	"
Phenol-d5	0.35		56.0%	22-62	"	"	"
Nitrobenzene-d5	0.60	Q	96.4%	42-90	"	"	"
2-Fluorobiphenyl	0.57		91.2%	40-93	"	"	"
2,4,6-Tribromophenol	0.47		74.8%	43-107	"	"	"
Terphenyl-d14	0.56		89.2%	59-111	"	"	"

OCS-11 (1705002-12)

Matrix: Other

Sampled: May-04-17 15:37

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			1.7	mg/L	1	B17G006	Jul-07-17	Jul-10-17
2-Methylphenol	U			1.6	"	"	"	"	"
3+4-Methylphenol	U			3.2	"	"	"	"	"
Hexachloroethane	U			1.6	"	"	"	"	"
Nitrobenzene	U			1.6	"	"	"	"	"
Hexachlorobutadiene	U			1.6	"	"	"	"	"
2,4,6-Trichlorophenol	U			1.6	"	"	"	"	"
2,4,5-Trichlorophenol	U			1.6	"	"	"	"	"
2,4-Dinitrotoluene	U			1.6	"	"	"	"	"



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Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

OCS-11 (1705002-12)

Matrix: Other

Sampled: May-04-17 15:37

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Hexachlorobenzene	U			1.6	mg/L	1	B17G006	Jul-07-17	Jul-10-17
Pentachlorophenol	U			38	"	"	"	"	"

OCS-12 (1705002-13)

Matrix: Other

Sampled: May-04-17 15:50

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			0.13	mg/L	1	B17E048	May-15-17	Jun-11-17
2-Methylphenol	U			0.025	"	"	"	"	"
3+4-Methylphenol	U			0.050	"	"	"	"	"
Hexachloroethane	U			0.025	"	"	"	"	"
Nitrobenzene	U			0.025	"	"	"	"	"
Hexachlorobutadiene	U			0.025	"	"	"	"	"
2,4,6-Trichlorophenol	U	(CCV), (TF), UJ		0.025	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.025	"	"	"	"	"
2,4-Dinitrotoluene	U	(RL), UJ		0.025	"	"	"	"	"
Hexachlorobenzene	U			0.025	"	"	"	"	"
Pentachlorophenol	U	(CCV), (TF), UJ		0.62	"	"	"	"	"

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.29	46.0%	20-71	"	"	"
2-Fluorophenol	0.37	59.8%	29-73	"	"	"
Phenol-d5	0.29	46.4%	22-62	"	"	"
Nitrobenzene-d5	0.50	79.2%	42-90	"	"	"
2-Fluorobiphenyl	0.57	90.4%	40-93	"	"	"
2,4,6-Tribromophenol	0.47	(CCV), J	75.6%	43-107	"	"
Terphenyl-d14	0.59	94.1%	59-111	"	"	"

1705002-04 1st Filtrate (1705002-14)

Matrix: Other

Sampled: May-04-17 14:10

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			110	mg/L	10	B17F036	Jun-08-17	Jun-11-17
2-Methylphenol	U			110	"	"	"	"	"
3+4-Methylphenol	U			210	"	"	"	"	"



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Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

1705002-04 1st Filtrate (1705002-14)

Matrix: Other

Sampled: May-04-17 14:10

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Hexachloroethane	U			110	mg/L	10	B17F036	Jun-08-17	Jun-11-17
Nitrobenzene	U			110	"	"	"	"	"
Hexachlorobutadiene	U			110	"	"	"	"	"
2,4,6-Trichlorophenol	U			110	"	"	"	"	"
2,4,5-Trichlorophenol	U			110	"	"	"	"	"
2,4-Dinitrotoluene	U			110	"	"	"	"	"
Hexachlorobenzene	U			110	"	"	"	"	"
Pentachlorophenol	U	(CCV), (LCS), UJ		270	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	280		104%	70-130	"	"	"
2-Fluorophenol	200		73.2%	70-130	"	"	"
Phenol-d5	280		103%	70-130	"	"	"
Nitrobenzene-d5	250		95.2%	70-130	"	"	"
2-Fluorobiphenyl	260		96.8%	70-130	"	"	"
2,4,6-Tribromophenol	74	Q	27.6%	70-130	"	"	"
Terphenyl-d14	260		97.6%	70-130	"	"	"

1705002-04 2nd Filtrate (1705002-15)

Matrix: Other

Sampled: May-04-17 14:10

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			0.13	mg/L	1	B17E049	May-26-17	Jun-10-17
2-Methylphenol	U			0.025	"	"	"	"	"
3+4-Methylphenol	U			0.050	"	"	"	"	"
Hexachloroethane	U			0.025	"	"	"	"	"
Nitrobenzene	U			0.025	"	"	"	"	"
Hexachlorobutadiene	U			0.025	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.025	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.025	"	"	"	"	"
2,4-Dinitrotoluene	U			0.025	"	"	"	"	"
Hexachlorobenzene	U			0.025	"	"	"	"	"
Pentachlorophenol	U			0.025	"	"	"	"	"



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Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

1705002-04 2nd Filtrate (1705002-15)

Matrix: Other

Sampled: May-04-17 14:10

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.43			69.5%		20-71	B17E049	May-26-17	Jun-10-17
2-Fluorophenol	0.47	Q		75.4%		29-73	"	"	"
Phenol-d5	0.36			57.2%		22-62	"	"	"
Nitrobenzene-d5	0.59	Q		94.8%		42-90	"	"	"
2-Fluorobiphenyl	0.62	Q		99.0%		40-93	"	"	"
2,4,6-Tribromophenol	0.53			84.8%		43-107	"	"	"
Terphenyl-d14	0.58			93.6%		59-111	"	"	"

1705002-12 1st Filtrate 1st Phase (1705002-18)

Matrix: Other

Sampled: May-04-17 15:37

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			86	mg/L	10	B17F036	Jun-08-17	Jun-12-17
2-Methylphenol	U			86	"	"	"	"	"
3+4-Methylphenol	U			170	"	"	"	"	"
Hexachloroethane	U			86	"	"	"	"	"
Nitrobenzene	U			86	"	"	"	"	"
Hexachlorobutadiene	U			86	"	"	"	"	"
2,4,6-Trichlorophenol	U			86	"	"	"	"	"
2,4,5-Trichlorophenol	U			86	"	"	"	"	"
2,4-Dinitrotoluene	U			86	"	"	"	"	"
Hexachlorobenzene	U			86	"	"	"	"	"
Pentachlorophenol	U	(LCS), UJ		220	"	"	"	"	"

Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	210			99.6%		70-130	"	"	"
2-Fluorophenol	220			104%		70-130	"	"	"
Phenol-d5	230			107%		70-130	"	"	"
Nitrobenzene-d5	190			86.8%		70-130	"	"	"
2-Fluorobiphenyl	200			92.8%		70-130	"	"	"
2,4,6-Tribromophenol	200			91.2%		70-130	"	"	"



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Project: Mid America Steel Drum, Inc.
Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

1705002-12 1st Filtrate 1st Phase (1705002-18)

Matrix: Other

Sampled: May-04-17 15:37

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
Terphenyl-d14	210			96.4%		70-130	B17F036	Jun-08-17	Jun-12-17

1705002-12 1st Filtrate 2nd Phase (1705002-19)

Matrix: Other

Sampled: May-04-17 15:37

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			93	mg/L	10	B17F036	Jun-08-17	Jun-12-17
2-Methylphenol	U			93	"	"	"	"	"
3+4-Methylphenol	U			190	"	"	"	"	"
Hexachloroethane	U			93	"	"	"	"	"
Nitrobenzene	U			93	"	"	"	"	"
Hexachlorobutadiene	U			93	"	"	"	"	"
2,4,6-Trichlorophenol	U			93	"	"	"	"	"
2,4,5-Trichlorophenol	U			93	"	"	"	"	"
2,4-Dinitrotoluene	U			93	"	"	"	"	"
Hexachlorobenzene	U			93	"	"	"	"	"
Pentachlorophenol	U	(LCS), UJ		230	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	240		104%	70-130	"	"	"
2-Fluorophenol	240		103%	70-130	"	"	"
Phenol-d5	270		118%	70-130	"	"	"
Nitrobenzene-d5	230		100%	70-130	"	"	"
2-Fluorobiphenyl	230		97.6%	70-130	"	"	"
2,4,6-Tribromophenol	210		92.8%	70-130	"	"	"
Terphenyl-d14	230		98.0%	70-130	"	"	"

1705002-12 2nd Filtrate (1705002-20)

Matrix: Other

Sampled: May-04-17 15:37

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			0.13	mg/L	1	B17E049	May-26-17	Jun-10-17



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Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

1705002-12 2nd Filtrate (1705002-20)

Matrix: Other

Sampled: May-04-17 15:37

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
2-Methylphenol	U			0.025	mg/L	1	B17E049	May-26-17	Jun-10-17
3+4-Methylphenol	U			0.051	"	"	"	"	"
Hexachloroethane	U			0.025	"	"	"	"	"
Nitrobenzene	U			0.025	"	"	"	"	"
Hexachlorobutadiene	U			0.025	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.025	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.025	"	"	"	"	"
2,4-Dinitrotoluene	U			0.025	"	"	"	"	"
Hexachlorobenzene	U			0.025	"	"	"	"	"
Pentachlorophenol	U			0.025	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.39		62.0%	20-71	"	"	"
2-Fluorophenol	0.41		65.3%	29-73	"	"	"
Phenol-d5	0.40	Q	62.8%	22-62	"	"	"
Nitrobenzene-d5	0.53		83.5%	42-90	"	"	"
2-Fluorobiphenyl	0.59		92.9%	40-93	"	"	"
2,4,6-Tribromophenol	0.58		92.3%	43-107	"	"	"
Terphenyl-d14	0.60		94.4%	59-111	"	"	"

CS-01 (1705003-01)

Matrix: Other

Sampled: May-04-17 11:48

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			110	mg/L	10	B17F036	Jun-08-17	Jun-11-17
2-Methylphenol	U			110	"	"	"	"	"
3+4-Methylphenol	U			230	"	"	"	"	"
Hexachloroethane	U			110	"	"	"	"	"
Nitrobenzene	U			110	"	"	"	"	"
Hexachlorobutadiene	U			110	"	"	"	"	"
2,4,6-Trichlorophenol	U			110	"	"	"	"	"
2,4,5-Trichlorophenol	U			110	"	"	"	"	"
2,4-Dinitrotoluene	U			110	"	"	"	"	"



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Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

CS-01 (1705003-01)

Matrix: Other

Sampled: May-04-17 11:48

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Hexachlorobenzene	U			110	mg/L	10	B17F036	Jun-08-17	Jun-11-17
Pentachlorophenol	Rejected	(CCV), (LCS), (MS)		290	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	290		103%	70-130	"	"	"
2-Fluorophenol	290		102%	70-130	"	"	"
Phenol-d5	300		107%	70-130	"	"	"
Nitrobenzene-d5	280		98.0%	70-130	"	"	"
2-Fluorobiphenyl	280		98.4%	70-130	"	"	"
2,4,6-Tribromophenol	200	Q	69.6%	70-130	"	"	"
Terphenyl-d14	290		102%	70-130	"	"	"

CS-02 (1705003-02)

Matrix: Other

Sampled: May-04-17 12:31

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U	(SURR), UJ		98	mg/L	10	B17F036	Jun-08-17	Jun-27-17
2-Methylphenol	U			98	"	"	"	"	"
3+4-Methylphenol	U			200	"	"	"	"	"
Hexachloroethane	U			98	"	"	"	"	"
Nitrobenzene	U			98	"	"	"	"	"
Hexachlorobutadiene	U			98	"	"	"	"	"
2,4,6-Trichlorophenol	U			98	"	"	"	"	"
2,4,5-Trichlorophenol	U			98	"	"	"	"	"
2,4-Dinitrotoluene	U			98	"	"	"	"	"
Hexachlorobenzene	U			98	"	"	"	"	"
Pentachlorophenol	U	(CCV), (LCS), (TF), UJ		2500	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	140	Q	56.0%	70-130	"	"	"
2-Fluorophenol	240		96.8%	70-130	"	"	"
Phenol-d5	220		88.0%	70-130	"	"	"



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Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

CS-02 (1705003-02)

Matrix: Other

Sampled: May-04-17 12:31

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
Nitrobenzene-d5	270			112%		70-130	B17F036	Jun-08-17	Jun-27-17
2-Fluorobiphenyl	260			106%		70-130	"	"	"
2,4,6-Tribromophenol	210			85.2%		70-130	"	"	"
Terphenyl-d14	240			99.2%		70-130	"	"	"

CS-03 (1705003-03)

Matrix: Other

Sampled: May-04-17 12:35

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U	(SURR), UJ		100	mg/L	10	B17F036	Jun-08-17	Jun-27-17
2-Methylphenol	U			100	"	"	"	"	"
3+4-Methylphenol	U			210	"	"	"	"	"
Hexachloroethane	U			100	"	"	"	"	"
Nitrobenzene	U			100	"	"	"	"	"
Hexachlorobutadiene	U			100	"	"	"	"	"
2,4,6-Trichlorophenol	U			100	"	"	"	"	"
2,4,5-Trichlorophenol	U			100	"	"	"	"	"
2,4-Dinitrotoluene	U			100	"	"	"	"	"
Hexachlorobenzene	U			100	"	"	"	"	"
Pentachlorophenol	U	UJ, (CCV), (LCS), (TF)		2600	"	"	"	"	"

Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	160	Q		60.8%		70-130	"	"	"
2-Fluorophenol	280			110%		70-130	"	"	"
Phenol-d5	260			101%		70-130	"	"	"
Nitrobenzene-d5	240			92.0%		70-130	"	"	"
2-Fluorobiphenyl	260			99.2%		70-130	"	"	"
2,4,6-Tribromophenol	170	Q		64.0%		70-130	"	"	"
Terphenyl-d14	260			99.2%		70-130	"	"	"



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Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

CS-04 (1705003-04)

Matrix: Other

Sampled: May-04-17 13:02

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			0.13	mg/L	1	B17E049	May-26-17	Jun-10-17
2-Methylphenol	U			0.025	"	"	"	"	"
3+4-Methylphenol	U			0.050	"	"	"	"	"
Hexachloroethane	U			0.025	"	"	"	"	"
Nitrobenzene	U			0.025	"	"	"	"	"
Hexachlorobutadiene	U			0.025	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.025	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.025	"	"	"	"	"
2,4-Dinitrotoluene	U			0.025	"	"	"	"	"
Hexachlorobenzene	U			0.025	"	"	"	"	"
Pentachlorophenol	U			0.025	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.30		47.6%	20-71	"	"	"
2-Fluorophenol	0.30		47.7%	29-73	"	"	"
Phenol-d5	0.31		49.4%	22-62	"	"	"
Nitrobenzene-d5	0.43		68.7%	42-90	"	"	"
2-Fluorobiphenyl	0.48		76.2%	40-93	"	"	"
2,4,6-Tribromophenol	0.49		78.9%	43-107	"	"	"
Terphenyl-d14	0.28	Q	44.2%	59-111	"	"	"

CS-05 (1705003-05)

Matrix: Other

Sampled: May-04-17 13:12

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			0.13	mg/L	1	B17E048	May-15-17	Jun-10-17
2-Methylphenol	U			0.025	"	"	"	"	"
3+4-Methylphenol	U			0.050	"	"	"	"	"
Hexachloroethane	U			0.025	"	"	"	"	"
Nitrobenzene	U			0.025	"	"	"	"	"
Hexachlorobutadiene	U			0.025	"	"	"	"	"
2,4,6-Trichlorophenol	U	(CCV), (TF), UJ		0.025	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.025	"	"	"	"	"
2,4-Dinitrotoluene	U	(RL), UJ		0.025	"	"	"	"	"



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Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

CS-05 (1705003-05)

Matrix: Other

Sampled: May-04-17 13:12

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Hexachlorobenzene	U			0.025	mg/L	1	B17E048	May-15-17	Jun-10-17
Pentachlorophenol	U	(CCV), (TF), UJ		0.62	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.31		49.3%	20-71	"	"	"
2-Fluorophenol	0.32		50.4%	29-73	"	"	"
Phenol-d5	0.39	Q	63.0%	22-62	"	"	"
Nitrobenzene-d5	0.48		76.6%	42-90	"	"	"
2-Fluorobiphenyl	0.53		85.1%	40-93	"	"	"
2,4,6-Tribromophenol	0.44	(CCV), J	70.6%	43-107	"	"	"
Terphenyl-d14	0.35	Q	56.2%	59-111	"	"	"

CS-06 (1705003-06)

Matrix: Other

Sampled: May-04-17 13:29

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			4.1	mg/L	32	B17E048	May-15-17	Jun-11-17
2-Methylphenol	U			0.78	"	"	"	"	"
3+4-Methylphenol	U			1.6	"	"	"	"	"
Hexachloroethane	U			0.78	"	"	"	"	"
Nitrobenzene	U			0.78	"	"	"	"	"
Hexachlorobutadiene	U			0.78	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.78	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.78	"	"	"	"	"
2,4-Dinitrotoluene	U	(RL), UJ		0.78	"	"	"	"	"
Hexachlorobenzene	U			0.78	"	"	"	"	"
Pentachlorophenol	U	(CCV), UJ		0.78	"	"	"	"	"

CS-07 (1705003-07)

Matrix: Other

Sampled: May-04-17 13:55

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			0.13	mg/L	1	B17E049	May-26-17	Jun-26-17
2-Methylphenol	U			0.025	"	"	"	"	"
3+4-Methylphenol	U			0.050	"	"	"	"	"
Hexachloroethane	U			0.025	"	"	"	"	"



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Reported:
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Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

CS-07 (1705003-07)

Matrix: Other

Sampled: May-04-17 13:55

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrobenzene	U			0.025	mg/L	1	B17E049	May-26-17	Jun-26-17
Hexachlorobutadiene	U			0.025	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.025	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.025	"	"	"	"	"
2,4-Dinitrotoluene	U			0.025	"	"	"	"	"
Hexachlorobenzene	U			0.025	"	"	"	"	"
Pentachlorophenol	U	(CCV), UJ		0.025	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.27		43.9%	20-71	"	"	"
2-Fluorophenol	0.45		71.9%	29-73	"	"	"
Phenol-d5	0.41	Q	65.4%	22-62	"	"	"
Nitrobenzene-d5	0.53		84.7%	42-90	"	"	"
2-Fluorobiphenyl	0.46		73.3%	40-93	"	"	"
2,4,6-Tribromophenol	0.54		86.8%	43-107	"	"	"
Terphenyl-d14	0.52		83.9%	59-111	"	"	"

CS-08 (1705003-08)

Matrix: Other

Sampled: May-04-17 14:15

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			0.17	mg/L	1	B17E049	May-26-17	Jun-10-17
2-Methylphenol	U			0.033	"	"	"	"	"
3+4-Methylphenol	U			0.067	"	"	"	"	"
Hexachloroethane	U			0.033	"	"	"	"	"
Nitrobenzene	U			0.033	"	"	"	"	"
Hexachlorobutadiene	U			0.033	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.033	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.033	"	"	"	"	"
2,4-Dinitrotoluene	U			0.033	"	"	"	"	"
Hexachlorobenzene	U			0.033	"	"	"	"	"
Pentachlorophenol	U			0.033	"	"	"	"	"



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CS-08 (1705003-08)

Matrix: Other

Sampled: May-04-17 14:15

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.54			64.8%		20-71	B17E049	May-26-17	Jun-10-17
2-Fluorophenol	0.57			68.2%		29-73	"	"	"
Phenol-d5	0.62	Q		73.8%		22-62	"	"	"
Nitrobenzene-d5	0.63			75.6%		42-90	"	"	"
2-Fluorobiphenyl	0.65			77.8%		40-93	"	"	"
2,4,6-Tribromophenol	0.74			88.4%		43-107	"	"	"
Terphenyl-d14	0.79			94.2%		59-111	"	"	"

SFS08 (1705004-07)

Matrix: Other

Sampled: May-04-17 15:10

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			1.3	mg/L	10	B17E049	May-26-17	Jun-10-17
2-Methylphenol	U			0.25	"	"	"	"	"
3+4-Methylphenol	1.8			0.50	"	"	"	"	"
Hexachloroethane	U			0.25	"	"	"	"	"
Nitrobenzene	U			0.25	"	"	"	"	"
Hexachlorobutadiene	U			0.25	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.25	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.25	"	"	"	"	"
2,4-Dinitrotoluene	U			0.25	"	"	"	"	"
Hexachlorobenzene	U			0.25	"	"	"	"	"
Pentachlorophenol	U			0.25	"	"	"	"	"

Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.42			66.8%		20-71	"	"	"
2-Fluorophenol	0.44			70.4%		29-73	"	"	"
Phenol-d5	0.46	Q		73.2%		22-62	"	"	"
Nitrobenzene-d5	0.62	Q		99.6%		42-90	"	"	"
2-Fluorobiphenyl	0.57			91.2%		40-93	"	"	"
2,4,6-Tribromophenol	0.57			91.6%		43-107	"	"	"



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Project: Mid America Steel Drum, Inc.
Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

SFS08 (1705004-07)

Matrix: Other

Sampled: May-04-17 15:10

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
Terphenyl-d14	0.58			92.4%		59-111	B17E049	May-26-17	Jun-10-17

SFS09 (1705004-08)

Matrix: Other

Sampled: May-04-17 15:23

Received: May-05-17 07:50

Sample Qualifiers: (H)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			1.3	mg/L	10	B17E049	May-26-17	Jun-10-17
2-Methylphenol	U			0.25	"	"	"	"	"
3+4-Methylphenol	0.74			0.50	"	"	"	"	"
Hexachloroethane	U			0.25	"	"	"	"	"
Nitrobenzene	U			0.25	"	"	"	"	"
Hexachlorobutadiene	U			0.25	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.25	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.25	"	"	"	"	"
2,4-Dinitrotoluene	U			0.25	"	"	"	"	"
Hexachlorobenzene	U			0.25	"	"	"	"	"
Pentachlorophenol	U	(MS), UJ		0.25	"	"	"	"	"

Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.34			54.0%		20-71	"	"	"
2-Fluorophenol	0.45			71.6%		29-73	"	"	"
Phenol-d5	0.48	Q		76.8%		22-62	"	"	"
Nitrobenzene-d5	0.71	Q		114%		42-90	"	"	"
2-Fluorobiphenyl	0.63	Q		101%		40-93	"	"	"
2,4,6-Tribromophenol	0.43			68.8%		43-107	"	"	"
Terphenyl-d14	0.58			92.0%		59-111	"	"	"

SFS10 (1705004-09)

Matrix: Other

Sampled: May-04-17 15:37

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			0.13	mg/L	1	B17E048	May-15-17	Jun-10-17
2-Methylphenol	U			0.025	"	"	"	"	"



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Project: Mid America Steel Drum, Inc.
Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

SFS10 (1705004-09)

Matrix: Other

Sampled: May-04-17 15:37

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
3+4-Methylphenol	0.055			0.049	mg/L	1	B17E048	May-15-17	Jun-10-17
Hexachloroethane	U			0.025	"	"	"	"	"
Nitrobenzene	U			0.025	"	"	"	"	"
Hexachlorobutadiene	U			0.025	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.025	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.025	"	"	"	"	"
2,4-Dinitrotoluene	U	(RL), UJ		0.025	"	"	"	"	"
Hexachlorobenzene	U			0.025	"	"	"	"	"
Pentachlorophenol	U			0.025	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.33		53.9%	20-71	"	"	"
2-Fluorophenol	0.39		63.8%	29-73	"	"	"
Phenol-d5	0.40	Q	64.8%	22-62	"	"	"
Nitrobenzene-d5	0.49		79.5%	42-90	"	"	"
2-Fluorobiphenyl	0.56		90.4%	40-93	"	"	"
2,4,6-Tribromophenol	0.55		89.5%	43-107	"	"	"
Terphenyl-d14	0.57		92.5%	59-111	"	"	"

SFS10 Dup (1705004-10)

Matrix: Other

Sampled: May-04-17 15:37

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Pyridine	U			0.13	mg/L	1	B17E048	May-15-17	Jun-10-17
2-Methylphenol	U			0.025	"	"	"	"	"
3+4-Methylphenol	0.056			0.050	"	"	"	"	"
Hexachloroethane	U			0.025	"	"	"	"	"
Nitrobenzene	U			0.025	"	"	"	"	"
Hexachlorobutadiene	U			0.025	"	"	"	"	"
2,4,6-Trichlorophenol	U			0.025	"	"	"	"	"
2,4,5-Trichlorophenol	U			0.025	"	"	"	"	"
2,4-Dinitrotoluene	U	(RL), UJ		0.025	"	"	"	"	"
Hexachlorobenzene	U			0.025	"	"	"	"	"
Pentachlorophenol	U			0.025	"	"	"	"	"

Surogate	Result		%REC	%REC Limits	Batch	Prepared	Analyzed
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Project: Mid America Steel Drum, Inc.
Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) US EPA Region 5 Chicago Regional Laboratory

SFS10 Dup (1705004-10)

Matrix: Other

Sampled: May-04-17 15:37

Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Surogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
Pyridine-d5	0.39			62.4%		20-71	B17E048	May-15-17	Jun-10-17
2-Fluorophenol	0.43			68.4%		29-73	"	"	"
Phenol-d5	0.43	Q		68.6%		22-62	"	"	"
Nitrobenzene-d5	0.52			83.8%		42-90	"	"	"
2-Fluorobiphenyl	0.59	Q		94.5%		40-93	"	"	"
2,4,6-Tribromophenol	0.58			93.6%		43-107	"	"	"
Terphenyl-d14	0.55			88.7%		59-111	"	"	"



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Project: Mid America Steel Drum, Inc.
Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17E048 - Solvent Extraction

Blank (B17E048-BLK1)

Prepared: May-15-17 Analyzed: Jun-05-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	U			0.13	mg/L						
2-Methylphenol	U			0.025	"						
3+4-Methylphenol	U			0.050	"						
Hexachloroethane	U			0.025	"						
Nitrobenzene	U			0.025	"						
Hexachlorobutadiene	U			0.025	"						
2,4,6-Trichlorophenol	U			0.025	"						
2,4,5-Trichlorophenol	U			0.025	"						
2,4-Dinitrotoluene	U			0.025	"						
Hexachlorobenzene	U			0.025	"						
Pentachlorophenol	U			0.025	"						
Surrogate: Pyridine-d5	0.31				"	0.6250		49.5%	20-71		
Surrogate: 2-Fluorophenol	0.45				"	0.6250		71.8%	29-73		
Surrogate: Phenol-d5	0.38				"	0.6250		61.0%	22-62		
Surrogate: Nitrobenzene-d5	0.58	Q			"	0.6250		92.2%	42-90		
Surrogate: 2-Fluorobiphenyl	0.56				"	0.6250		89.6%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.62				"	0.6250		99.8%	43-107		
Surrogate: Terphenyl-d14	0.62				"	0.6250		100%	59-111		

Blank (B17E048-BLK2)

Prepared: May-15-17 Analyzed: Jun-05-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	U			0.13	mg/L						
2-Methylphenol	U			0.025	"						
3+4-Methylphenol	U			0.050	"						
Hexachloroethane	U			0.025	"						



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Project: Mid America Steel Drum, Inc.
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Project Manager: Jamie Paulin

Reported:
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Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17E048 - Solvent Extraction

Blank (B17E048-BLK2)

Prepared: May-15-17 Analyzed: Jun-05-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Nitrobenzene	U			0.025	mg/L						
Hexachlorobutadiene	U			0.025	"						
2,4,6-Trichlorophenol	U			0.025	"						
2,4,5-Trichlorophenol	U			0.025	"						
2,4-Dinitrotoluene	U			0.025	"						
Hexachlorobenzene	U			0.025	"						
Pentachlorophenol	U			0.025	"						
Surrogate: Pyridine-d5	0.23				"	0.6250		36.2%	20-71		
Surrogate: 2-Fluorophenol	0.46	Q			"	0.6250		74.2%	29-73		
Surrogate: Phenol-d5	0.39				"	0.6250		61.9%	22-62		
Surrogate: Nitrobenzene-d5	0.58	Q			"	0.6250		93.5%	42-90		
Surrogate: 2-Fluorobiphenyl	0.57				"	0.6250		90.6%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.62				"	0.6250		98.7%	43-107		
Surrogate: Terphenyl-d14	0.61				"	0.6250		96.9%	59-111		

Blank (B17E048-BLK3)

Prepared: May-15-17 Analyzed: Jun-05-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	U			0.13	mg/L						
2-Methylphenol	U			0.025	"						
3+4-Methylphenol	U			0.050	"						
Hexachloroethane	U			0.025	"						
Nitrobenzene	U			0.025	"						
Hexachlorobutadiene	U			0.025	"						
2,4,6-Trichlorophenol	U			0.025	"						
2,4,5-Trichlorophenol	U			0.025	"						
2,4-Dinitrotoluene	U			0.025	"						
Hexachlorobenzene	U			0.025	"						
Pentachlorophenol	U			0.025	"						
Surrogate: Pyridine-d5	0.41				"	0.6250		66.3%	20-71		
Surrogate: 2-Fluorophenol	0.45				"	0.6250		71.4%	29-73		
Surrogate: Phenol-d5	0.38				"	0.6250		60.2%	22-62		



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Project: Mid America Steel Drum, Inc.
Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17E048 - Solvent Extraction

Blank (B17E048-BLK3)

Prepared: May-15-17 Analyzed: Jun-05-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Surrogate: Nitrobenzene-d5	3.0	Q			mg/L	0.6250		475%	42-90		
Surrogate: 2-Fluorobiphenyl	0.57				"	0.6250		91.4%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.64				"	0.6250		102%	43-107		
Surrogate: Terphenyl-d14	0.60				"	0.6250		95.8%	59-111		

Blank (B17E048-BLK4)

Prepared: May-15-17 Analyzed: Jun-05-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	U			0.13	mg/L						
2-Methylphenol	U			0.025	"						
3+4-Methylphenol	U			0.050	"						
Hexachloroethane	U			0.025	"						
Nitrobenzene	U			0.025	"						
Hexachlorobutadiene	U			0.025	"						
2,4,6-Trichlorophenol	U			0.025	"						
2,4,5-Trichlorophenol	U			0.025	"						
2,4-Dinitrotoluene	U			0.025	"						
Hexachlorobenzene	U			0.025	"						
Pentachlorophenol	U			0.025	"						
Surrogate: Pyridine-d5	0.39				"	0.6250		62.8%	20-71		
Surrogate: 2-Fluorophenol	0.40				"	0.6250		63.7%	29-73		
Surrogate: Phenol-d5	0.34				"	0.6250		53.9%	22-62		
Surrogate: Nitrobenzene-d5	2.6	Q			"	0.6250		412%	42-90		
Surrogate: 2-Fluorobiphenyl	0.52				"	0.6250		83.8%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.63				"	0.6250		101%	43-107		
Surrogate: Terphenyl-d14	0.51				"	0.6250		81.1%	59-111		

Blank (B17E048-BLK5)

Prepared: May-15-17 Analyzed: Jun-05-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	U			0.13	mg/L						
2-Methylphenol	U			0.024	"						



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Project: Mid America Steel Drum, Inc.
Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17E048 - Solvent Extraction

Blank (B17E048-BLK5)

Prepared: May-15-17 Analyzed: Jun-05-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
3+4-Methylphenol	U			0.049	mg/L						
Hexachloroethane	U			0.024	"						
Nitrobenzene	U			0.024	"						
Hexachlorobutadiene	U			0.024	"						
2,4,6-Trichlorophenol	U			0.024	"						
2,4,5-Trichlorophenol	U			0.024	"						
2,4-Dinitrotoluene	U			0.024	"						
Hexachlorobenzene	U			0.024	"						
Pentachlorophenol	U			0.024	"						
Surrogate: Pyridine-d5	0.47	Q			"	0.6098		76.9%	20-71		
Surrogate: 2-Fluorophenol	0.44				"	0.6098		73.0%	29-73		
Surrogate: Phenol-d5	0.38				"	0.6098		61.6%	22-62		
Surrogate: Nitrobenzene-d5	2.8	Q			"	0.6098		459%	42-90		
Surrogate: 2-Fluorobiphenyl	0.54				"	0.6098		88.6%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.63				"	0.6098		103%	43-107		
Surrogate: Terphenyl-d14	0.69	Q			"	0.6098		113%	59-111		

LCS (B17E048-BS1)

Prepared: May-15-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.38			0.13	mg/L	0.6250		61.1%	32-68		
2-Methylphenol	0.51			0.025	"	0.6250		82.1%	26-107		
3+4-Methylphenol	0.99			0.050	"	1.250		79.2%	29-101		
Hexachloroethane	0.43			0.025	"	0.6250		69.2%	31-94		
Nitrobenzene	0.54			0.025	"	0.6250		86.4%	33-111		
Hexachlorobutadiene	0.46			0.025	"	0.6250		72.8%	31-100		
2,4,6-Trichlorophenol	0.58			0.025	"	0.6250		92.8%	42-112		
2,4,5-Trichlorophenol	0.59			0.025	"	0.6250		95.1%	51-117		
2,4-Dinitrotoluene	0.59			0.025	"	0.6250		94.6%	63-128		
Hexachlorobenzene	0.56			0.025	"	0.6250		90.2%	55-122		
Pentachlorophenol	0.49			0.025	"	0.6250		78.4%	60-120		
Surrogate: Pyridine-d5	0.39				"	0.6250		62.8%	20-71		



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Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17E048 - Solvent Extraction

LCS (B17E048-BS1)

Prepared: May-15-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Surrogate: 2-Fluorophenol	0.43				mg/L	0.6250		69.0%	29-73		
Surrogate: Phenol-d5	0.36				"	0.6250		56.9%	22-62		
Surrogate: Nitrobenzene-d5	0.57	Q			"	0.6250		91.6%	42-90		
Surrogate: 2-Fluorobiphenyl	0.55				"	0.6250		87.3%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.55				"	0.6250		88.3%	43-107		
Surrogate: Terphenyl-d14	0.58				"	0.6250		92.9%	59-111		

LCS Dup (B17E048-BSD1)

Prepared: May-15-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.34			0.13	mg/L	0.6250		53.8%	32-68	12.7	34
2-Methylphenol	0.49			0.025	"	0.6250		79.1%	26-107	3.72	30
3+4-Methylphenol	0.95			0.050	"	1.250		76.2%	29-101	3.86	30
Hexachloroethane	0.47			0.025	"	0.6250		74.6%	31-94	7.57	30
Nitrobenzene	0.55			0.025	"	0.6250		88.0%	33-111	1.93	32
Hexachlorobutadiene	0.46			0.025	"	0.6250		74.3%	31-100	1.96	30
2,4,6-Trichlorophenol	0.56			0.025	"	0.6250		89.7%	42-112	3.37	30
2,4,5-Trichlorophenol	0.56			0.025	"	0.6250		90.1%	51-117	5.36	30
2,4-Dinitrotoluene	0.60			0.025	"	0.6250		96.0%	63-128	1.43	30
Hexachlorobenzene	0.56			0.025	"	0.6250		90.1%	55-122	0.133	30
Pentachlorophenol	0.48			0.025	"	0.6250		77.6%	60-120	1.08	30
Surrogate: Pyridine-d5	0.34				"	0.6250		54.4%	20-71		
Surrogate: 2-Fluorophenol	0.43				"	0.6250		68.3%	29-73		
Surrogate: Phenol-d5	0.36				"	0.6250		57.0%	22-62		
Surrogate: Nitrobenzene-d5	0.58	Q			"	0.6250		93.2%	42-90		
Surrogate: 2-Fluorobiphenyl	0.56				"	0.6250		90.4%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.57				"	0.6250		91.6%	43-107		
Surrogate: Terphenyl-d14	0.57				"	0.6250		91.5%	59-111		

MRL Check (B17E048-MRL1)

Prepared: May-15-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.016			0.13	mg/L	2.500E-2		62.0%	32-68		



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Project: Mid America Steel Drum, Inc.
Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

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Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17E048 - Solvent Extraction

MRL Check (B17E048-MRL1)

Prepared: May-15-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
2-Methylphenol	0.016			0.025	mg/L	2.500E-2		62.0%	26-107		
3+4-Methylphenol	0.028			0.050	"	5.000E-2		55.0%	29-101		
Hexachloroethane	0.013			0.025	"	2.500E-2		51.0%	31-94		
Nitrobenzene	0.019			0.025	"	2.500E-2		75.0%	33-111		
Hexachlorobutadiene	0.014			0.025	"	2.500E-2		57.0%	31-100		
2,4,6-Trichlorophenol	0.015			0.025	"	2.500E-2		60.0%	42-112		
2,4,5-Trichlorophenol	0.018			0.025	"	2.500E-2		71.0%	51-117		
2,4-Dinitrotoluene	0.015	Q		0.025	"	2.500E-2		60.0%	63-128		
Hexachlorobenzene	0.018			0.025	"	2.500E-2		70.0%	55-122		
Pentachlorophenol	0.020			0.025	"	2.500E-2		82.0%	60-120		
Surrogate: Pyridine-d5	0.39				"	0.6250		63.2%	20-71		
Surrogate: 2-Fluorophenol	0.34				"	0.6250		53.7%	29-73		
Surrogate: Phenol-d5	0.29				"	0.6250		46.0%	22-62		
Surrogate: Nitrobenzene-d5	0.44				"	0.6250		70.9%	42-90		
Surrogate: 2-Fluorobiphenyl	0.43				"	0.6250		69.2%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.45				"	0.6250		72.4%	43-107		
Surrogate: Terphenyl-d14	0.45				"	0.6250		72.3%	59-111		

MRL Check (B17E048-MRL2)

Prepared: May-15-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.076			0.13	mg/L	0.1250		60.6%	32-68		
2-Methylphenol	0.090			0.025	"	0.1250		72.0%	26-107		
3+4-Methylphenol	0.18			0.050	"	0.2500		71.8%	29-101		
Hexachloroethane	0.084			0.025	"	0.1250		67.0%	31-94		
Nitrobenzene	0.11			0.025	"	0.1250		86.0%	33-111		
Hexachlorobutadiene	0.087			0.025	"	0.1250		69.6%	31-100		
2,4,6-Trichlorophenol	0.11			0.025	"	0.1250		85.2%	42-112		
2,4,5-Trichlorophenol	0.11			0.025	"	0.1250		88.2%	51-117		
2,4-Dinitrotoluene	0.12			0.025	"	0.1250		92.8%	63-128		
Hexachlorobenzene	0.11			0.025	"	0.1250		89.4%	55-122		



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Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17E048 - Solvent Extraction

MRL Check (B17E048-MRL2)

Prepared: May-15-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pentachlorophenol	0.082			0.025	mg/L	0.1250		65.8%	60-120		
Surrogate: Pyridine-d5	0.41				"	0.6250		65.6%	20-71		
Surrogate: 2-Fluorophenol	0.42				"	0.6250		67.8%	29-73		
Surrogate: Phenol-d5	0.35				"	0.6250		56.3%	22-62		
Surrogate: Nitrobenzene-d5	0.54				"	0.6250		86.4%	42-90		
Surrogate: 2-Fluorobiphenyl	0.54				"	0.6250		86.5%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.58				"	0.6250		93.0%	43-107		
Surrogate: Terphenyl-d14	0.59				"	0.6250		94.7%	59-111		

Matrix Spike (B17E048-MS1)

Source: 1705004-10

Prepared: May-15-17 Analyzed: Jun-10-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.32			0.13	mg/L	0.6250	U	51.7%	32-68		
2-Methylphenol	0.53			0.025	"	0.6250	U	84.9%	26-107		
3+4-Methylphenol	1.1			0.050	"	1.250	0.056	86.7%	29-101		
Hexachloroethane	0.36			0.025	"	0.6250	U	58.4%	31-94		
Nitrobenzene	0.47			0.025	"	0.6250	U	74.7%	33-111		
Hexachlorobutadiene	0.41			0.025	"	0.6250	U	65.3%	31-100		
2,4,6-Trichlorophenol	0.60			0.025	"	0.6250	U	95.6%	42-112		
2,4,5-Trichlorophenol	0.56			0.025	"	0.6250	U	89.7%	51-117		
2,4-Dinitrotoluene	0.57			0.025	"	0.6250	U	90.4%	63-128		
Hexachlorobenzene	0.57			0.025	"	0.6250	U	91.2%	55-122		
Pentachlorophenol	0.51			0.025	"	0.6250	U	81.8%	60-120		
Surrogate: Pyridine-d5	0.33				"	0.6250		52.8%	20-71		
Surrogate: 2-Fluorophenol	0.40				"	0.6250		63.5%	29-73		
Surrogate: Phenol-d5	0.40	Q			"	0.6250		64.7%	22-62		
Surrogate: Nitrobenzene-d5	0.47				"	0.6250		74.6%	42-90		
Surrogate: 2-Fluorobiphenyl	0.57				"	0.6250		91.9%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.57				"	0.6250		91.2%	43-107		
Surrogate: Terphenyl-d14	0.56				"	0.6250		90.1%	59-111		



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Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17E048 - Solvent Extraction

Matrix Spike Dup (B17E048-MSD1)		Source: 1705004-10		Prepared: May-15-17 Analyzed: Jun-10-17							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.33			0.13	mg/L	0.6250	U	53.2%	32-68	2.82	34
2-Methylphenol	0.54			0.025	"	0.6250	U	86.8%	26-107	2.28	30
3+4-Methylphenol	1.2			0.050	"	1.250	0.056	88.5%	29-101	1.89	30
Hexachloroethane	0.35			0.025	"	0.6250	U	56.3%	31-94	3.63	30
Nitrobenzene	0.50			0.025	"	0.6250	U	79.8%	33-111	6.58	32
Hexachlorobutadiene	0.41			0.025	"	0.6250	U	65.7%	31-100	0.610	30
2,4,6-Trichlorophenol	0.59			0.025	"	0.6250	U	95.0%	42-112	0.672	30
2,4,5-Trichlorophenol	0.55			0.025	"	0.6250	U	87.7%	51-117	2.21	30
2,4-Dinitrotoluene	0.57			0.025	"	0.6250	U	90.8%	63-128	0.397	30
Hexachlorobenzene	0.56			0.025	"	0.6250	U	89.2%	55-122	2.31	30
Pentachlorophenol	0.50			0.025	"	0.6250	U	80.4%	60-120	1.63	30
Surrogate: Pyridine-d5	0.34				"	0.6250		53.8%	20-71		
Surrogate: 2-Fluorophenol	0.42				"	0.6250		67.5%	29-73		
Surrogate: Phenol-d5	0.43	Q			"	0.6250		69.2%	22-62		
Surrogate: Nitrobenzene-d5	0.52				"	0.6250		83.9%	42-90		
Surrogate: 2-Fluorobiphenyl	0.55				"	0.6250		87.7%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.59				"	0.6250		93.7%	43-107		
Surrogate: Terphenyl-d14	0.59				"	0.6250		94.9%	59-111		

Batch B17E049 - Solvent Extraction

Blank (B17E049-BLK1)		Prepared: May-26-17 Analyzed: Jun-05-17									
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	U			0.13	mg/L						
2-Methylphenol	U			0.025	"						
3+4-Methylphenol	U			0.050	"						
Hexachloroethane	U			0.025	"						
Nitrobenzene	U			0.025	"						
Hexachlorobutadiene	U			0.025	"						
2,4,6-Trichlorophenol	U			0.025	"						
2,4,5-Trichlorophenol	U			0.025	"						



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Batch B17E049 - Solvent Extraction

Blank (B17E049-BLK1)

Prepared: May-26-17 Analyzed: Jun-05-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
2,4-Dinitrotoluene	U			0.025	mg/L						
Hexachlorobenzene	U			0.025	"						
Pentachlorophenol	U			0.025	"						
Surrogate: Pyridine-d5	0.36				"	0.6250		57.6%	20-71		
Surrogate: 2-Fluorophenol	0.44				"	0.6250		70.1%	29-73		
Surrogate: Phenol-d5	0.37				"	0.6250		59.7%	22-62		
Surrogate: Nitrobenzene-d5	0.59	Q			"	0.6250		94.1%	42-90		
Surrogate: 2-Fluorobiphenyl	0.57				"	0.6250		91.1%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.61				"	0.6250		97.1%	43-107		
Surrogate: Terphenyl-d14	0.61				"	0.6250		98.2%	59-111		

Blank (B17E049-BLK2)

Prepared: May-26-17 Analyzed: Jun-06-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	U			0.13	mg/L						
2-Methylphenol	U			0.025	"						
3+4-Methylphenol	U			0.050	"						
Hexachloroethane	U			0.025	"						
Nitrobenzene	U			0.025	"						
Hexachlorobutadiene	U			0.025	"						
2,4,6-Trichlorophenol	U			0.025	"						
2,4,5-Trichlorophenol	U			0.025	"						
2,4-Dinitrotoluene	U			0.025	"						
Hexachlorobenzene	U			0.025	"						
Pentachlorophenol	U			0.025	"						
Surrogate: Pyridine-d5	0.40				"	0.6250		64.2%	20-71		
Surrogate: 2-Fluorophenol	0.46	Q			"	0.6250		73.8%	29-73		
Surrogate: Phenol-d5	0.38				"	0.6250		61.4%	22-62		
Surrogate: Nitrobenzene-d5	0.61	Q			"	0.6250		97.0%	42-90		
Surrogate: 2-Fluorobiphenyl	0.60	Q			"	0.6250		95.3%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.63				"	0.6250		101%	43-107		
Surrogate: Terphenyl-d14	0.60				"	0.6250		95.6%	59-111		



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Batch B17E049 - Solvent Extraction

Blank (B17E049-BLK3)

Prepared: May-26-17 Analyzed: Jun-06-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	U			0.13	mg/L						
2-Methylphenol	U			0.024	"						
3+4-Methylphenol	U			0.049	"						
Hexachloroethane	U			0.024	"						
Nitrobenzene	U			0.024	"						
Hexachlorobutadiene	U			0.024	"						
2,4,6-Trichlorophenol	U			0.024	"						
2,4,5-Trichlorophenol	U			0.024	"						
2,4-Dinitrotoluene	U			0.024	"						
Hexachlorobenzene	U			0.024	"						
Pentachlorophenol	U			0.024	"						
Surrogate: Pyridine-d5	0.41				"	0.6098		67.8%	20-71		
Surrogate: 2-Fluorophenol	0.42				"	0.6098		68.4%	29-73		
Surrogate: Phenol-d5	0.35				"	0.6098		57.0%	22-62		
Surrogate: Nitrobenzene-d5	0.54				"	0.6098		89.2%	42-90		
Surrogate: 2-Fluorobiphenyl	0.55				"	0.6098		89.9%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.60				"	0.6098		98.5%	43-107		
Surrogate: Terphenyl-d14	0.58				"	0.6098		95.0%	59-111		

Blank (B17E049-BLK4)

Prepared: May-26-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	U			0.13	mg/L						
2-Methylphenol	U			0.025	"						
3+4-Methylphenol	U			0.050	"						
Hexachloroethane	U			0.025	"						
Nitrobenzene	U			0.025	"						
Hexachlorobutadiene	U			0.025	"						
2,4,6-Trichlorophenol	U			0.025	"						
2,4,5-Trichlorophenol	U			0.025	"						
2,4-Dinitrotoluene	U			0.025	"						



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Batch B17E049 - Solvent Extraction

Blank (B17E049-BLK4)

Prepared: May-26-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Hexachlorobenzene	U			0.025	mg/L						
Pentachlorophenol	U			0.025	"						
Surrogate: Pyridine-d5	0.43				"	0.6250		69.4%	20-71		
Surrogate: 2-Fluorophenol	0.43				"	0.6250		69.1%	29-73		
Surrogate: Phenol-d5	0.36				"	0.6250		56.9%	22-62		
Surrogate: Nitrobenzene-d5	0.56	Q			"	0.6250		90.4%	42-90		
Surrogate: 2-Fluorobiphenyl	0.56				"	0.6250		90.3%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.57				"	0.6250		91.6%	43-107		
Surrogate: Terphenyl-d14	0.58				"	0.6250		93.0%	59-111		

LCS (B17E049-BS1)

Prepared: May-26-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.34			0.13	mg/L	0.6250		53.7%	32-68		
2-Methylphenol	0.42			0.025	"	0.6250		67.2%	26-107		
3+4-Methylphenol	0.80			0.050	"	1.250		64.3%	29-101		
Hexachloroethane	0.41			0.025	"	0.6250		66.4%	31-94		
Nitrobenzene	0.45			0.025	"	0.6250		72.5%	33-111		
Hexachlorobutadiene	0.43			0.025	"	0.6250		68.2%	31-100		
2,4,6-Trichlorophenol	0.47			0.025	"	0.6250		75.5%	42-112		
2,4,5-Trichlorophenol	0.49			0.025	"	0.6250		78.2%	51-117		
2,4-Dinitrotoluene	0.55			0.025	"	0.6250		88.2%	63-128		
Hexachlorobenzene	0.55			0.025	"	0.6250		88.8%	55-122		
Pentachlorophenol	0.43			0.025	"	0.6250		68.4%	60-120		
Surrogate: Pyridine-d5	0.35				"	0.6250		55.6%	20-71		
Surrogate: 2-Fluorophenol	0.35				"	0.6250		56.2%	29-73		
Surrogate: Phenol-d5	0.31				"	0.6250		50.0%	22-62		
Surrogate: Nitrobenzene-d5	0.48				"	0.6250		77.1%	42-90		
Surrogate: 2-Fluorobiphenyl	0.50				"	0.6250		80.2%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.51				"	0.6250		81.2%	43-107		
Surrogate: Terphenyl-d14	0.59				"	0.6250		93.6%	59-111		



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Batch B17E049 - Solvent Extraction

LCS Dup (B17E049-BSD1)

Prepared: May-26-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.34			0.13	mg/L	0.6250		54.8%	32-68	2.06	34
2-Methylphenol	0.40			0.025	"	0.6250		64.0%	26-107	4.76	30
3+4-Methylphenol	0.79			0.050	"	1.250		63.0%	29-101	2.11	30
Hexachloroethane	0.42			0.025	"	0.6250		66.6%	31-94	0.361	30
Nitrobenzene	0.47			0.025	"	0.6250		75.6%	33-111	4.16	32
Hexachlorobutadiene	0.44			0.025	"	0.6250		69.7%	31-100	2.15	30
2,4,6-Trichlorophenol	0.48			0.025	"	0.6250		77.4%	42-112	2.51	30
2,4,5-Trichlorophenol	0.50			0.025	"	0.6250		80.2%	51-117	2.53	30
2,4-Dinitrotoluene	0.54			0.025	"	0.6250		86.4%	63-128	1.97	30
Hexachlorobenzene	0.56			0.025	"	0.6250		89.9%	55-122	1.30	30
Pentachlorophenol	0.46			0.025	"	0.6250		74.3%	60-120	8.35	30
Surrogate: Pyridine-d5	0.35				"	0.6250		56.2%	20-71		
Surrogate: 2-Fluorophenol	0.36				"	0.6250		57.0%	29-73		
Surrogate: Phenol-d5	0.30				"	0.6250		48.0%	22-62		
Surrogate: Nitrobenzene-d5	0.50				"	0.6250		79.4%	42-90		
Surrogate: 2-Fluorobiphenyl	0.52				"	0.6250		82.4%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.52				"	0.6250		83.2%	43-107		
Surrogate: Terphenyl-d14	0.57				"	0.6250		91.1%	59-111		

MRL Check (B17E049-MRL1)

Prepared: May-26-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.014			0.13	mg/L	2.500E-2		56.0%	32-68		
2-Methylphenol	0.018			0.025	"	2.500E-2		72.0%	26-107		
3+4-Methylphenol	0.032			0.050	"	5.000E-2		65.0%	29-101		
Hexachloroethane	0.019			0.025	"	2.500E-2		75.0%	31-94		
Nitrobenzene	0.022			0.025	"	2.500E-2		88.0%	33-111		
Hexachlorobutadiene	0.020			0.025	"	2.500E-2		82.0%	31-100		
2,4,6-Trichlorophenol	0.019			0.025	"	2.500E-2		77.0%	42-112		
2,4,5-Trichlorophenol	0.019			0.025	"	2.500E-2		75.0%	51-117		
2,4-Dinitrotoluene	0.019			0.025	"	2.500E-2		75.0%	63-128		



Environmental Protection Agency Region5 Chicago Regional Laboratory

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Project: Mid America Steel Drum, Inc.
Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17E049 - Solvent Extraction

MRL Check (B17E049-MRL1)

Prepared: May-26-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Hexachlorobenzene	0.022			0.025	mg/L	2.500E-2		89.0%	55-122		
Pentachlorophenol	0.023			0.025	"	2.500E-2		92.0%	60-120		
Surrogate: Pyridine-d5	0.43				"	0.6250		68.0%	20-71		
Surrogate: 2-Fluorophenol	0.42				"	0.6250		67.6%	29-73		
Surrogate: Phenol-d5	0.35				"	0.6250		56.4%	22-62		
Surrogate: Nitrobenzene-d5	0.58	Q			"	0.6250		92.6%	42-90		
Surrogate: 2-Fluorobiphenyl	0.57				"	0.6250		91.8%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.56				"	0.6250		90.0%	43-107		
Surrogate: Terphenyl-d14	0.58				"	0.6250		92.8%	59-111		

MRL Check (B17E049-MRL2)

Prepared: May-26-17 Analyzed: Jun-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.049			0.13	mg/L	0.1266		38.8%	32-68		
2-Methylphenol	0.091			0.025	"	0.1266		72.2%	26-107		
3+4-Methylphenol	0.17			0.051	"	0.2532		66.3%	29-101		
Hexachloroethane	0.084			0.025	"	0.1266		66.6%	31-94		
Nitrobenzene	0.097			0.025	"	0.1266		77.0%	33-111		
Hexachlorobutadiene	0.091			0.025	"	0.1266		71.6%	31-100		
2,4,6-Trichlorophenol	0.094			0.025	"	0.1266		74.0%	42-112		
2,4,5-Trichlorophenol	0.093			0.025	"	0.1266		73.6%	51-117		
2,4-Dinitrotoluene	0.11			0.025	"	0.1266		84.0%	63-128		
Hexachlorobenzene	0.11			0.025	"	0.1266		84.4%	55-122		
Pentachlorophenol	0.086			0.025	"	0.1266		67.6%	60-120		
Surrogate: Pyridine-d5	0.25				"	0.6329		38.7%	20-71		
Surrogate: 2-Fluorophenol	0.38				"	0.6329		60.2%	29-73		
Surrogate: Phenol-d5	0.33				"	0.6329		51.4%	22-62		
Surrogate: Nitrobenzene-d5	0.49				"	0.6329		78.0%	42-90		
Surrogate: 2-Fluorobiphenyl	0.52				"	0.6329		81.9%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.53				"	0.6329		83.4%	43-107		
Surrogate: Terphenyl-d14	0.59				"	0.6329		93.2%	59-111		



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Project: Mid America Steel Drum, Inc.
Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17E049 - Solvent Extraction

Matrix Spike (B17E049-MS1)			Source: 1705002-05			Prepared: May-26-17 Analyzed: Jun-11-17					
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.32			1.3	mg/L	0.6250	U	51.2%	32-68		
2-Methylphenol	0.49			0.25	"	0.6250	U	78.0%	26-107		
3+4-Methylphenol	0.84			0.50	"	1.250	U	67.0%	29-101		
Hexachloroethane	0.46			0.25	"	0.6250	U	74.4%	31-94		
Nitrobenzene	0.56			0.25	"	0.6250	U	89.2%	33-111		
Hexachlorobutadiene	0.54			0.25	"	0.6250	U	85.6%	31-100		
2,4,6-Trichlorophenol	0.51			0.25	"	0.6250	U	81.2%	42-112		
2,4,5-Trichlorophenol	0.39			0.25	"	0.6250	U	62.8%	51-117		
2,4-Dinitrotoluene	0.44			0.25	"	0.6250	U	70.4%	63-128		
Hexachlorobenzene	0.60			0.25	"	0.6250	U	95.2%	55-122		
Pentachlorophenol	U	UJ, (CCV)		0.25	"	0.6250	Rejected	%	60-120		
Surrogate: Pyridine-d5	0.31				"	0.6250		49.6%	20-71		
Surrogate: 2-Fluorophenol	0.43				"	0.6250		68.4%	29-73		
Surrogate: Phenol-d5	0.41	Q			"	0.6250		65.6%	22-62		
Surrogate: Nitrobenzene-d5	0.57	Q			"	0.6250		91.6%	42-90		
Surrogate: 2-Fluorobiphenyl	0.58				"	0.6250		92.8%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.49				"	0.6250		78.0%	43-107		
Surrogate: Terphenyl-d14	0.52				"	0.6250		83.6%	59-111		

Matrix Spike (B17E049-MS2)			Source: 1705004-08			Prepared: May-26-17 Analyzed: Jun-10-17					
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.26			1.3	mg/L	0.6250	U	40.8%	32-68		
2-Methylphenol	0.46			0.25	"	0.6250	U	72.8%	26-107		
3+4-Methylphenol	1.6			0.50	"	1.250	0.74	71.8%	29-101		
Hexachloroethane	0.46			0.25	"	0.6250	U	72.8%	31-94		
Nitrobenzene	0.67			0.25	"	0.6250	U	107%	33-111		
Hexachlorobutadiene	0.50			0.25	"	0.6250	U	80.8%	31-100		
2,4,6-Trichlorophenol	0.44			0.25	"	0.6250	U	69.6%	42-112		
2,4,5-Trichlorophenol	0.47			0.25	"	0.6250	U	74.8%	51-117		
2,4-Dinitrotoluene	0.54			0.25	"	0.6250	U	87.2%	63-128		



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Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

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Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17E049 - Solvent Extraction

Matrix Spike (B17E049-MS2)		Source: 1705004-08		Prepared: May-26-17 Analyzed: Jun-10-17							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Hexachlorobenzene	0.55			0.25	mg/L	0.6250	U	88.4%	55-122		
Pentachlorophenol	0.38	Q		0.25	"	0.6250	0.14	36.8%	60-120		
Surrogate: Pyridine-d5	0.29				"	0.6250		46.4%	20-71		
Surrogate: 2-Fluorophenol	0.42				"	0.6250		67.2%	29-73		
Surrogate: Phenol-d5	0.28				"	0.6250		45.2%	22-62		
Surrogate: Nitrobenzene-d5	0.57	Q			"	0.6250		91.6%	42-90		
Surrogate: 2-Fluorobiphenyl	0.60	Q			"	0.6250		96.4%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.49				"	0.6250		78.8%	43-107		
Surrogate: Terphenyl-d14	0.58				"	0.6250		93.6%	59-111		

Matrix Spike Dup (B17E049-MSD1)		Source: 1705002-05		Prepared: May-26-17 Analyzed: Jun-11-17							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.32	(IS)		1.3	mg/L	0.6250	U	50.4%	32-68	1.57	34
2-Methylphenol	0.48	(IS)		0.25	"	0.6250	U	76.0%	26-107	2.60	30
3+4-Methylphenol	0.86	(IS)		0.50	"	1.250	U	69.2%	29-101	3.23	30
Hexachloroethane	0.48	(IS)		0.25	"	0.6250	U	76.8%	31-94	3.17	30
Nitrobenzene	0.54	(IS)		0.25	"	0.6250	U	85.6%	33-111	4.12	32
Hexachlorobutadiene	0.58	(IS)		0.25	"	0.6250	U	93.2%	31-100	8.50	30
2,4,6-Trichlorophenol	0.50	(IS)		0.25	"	0.6250	U	80.8%	42-112	0.494	30
2,4,5-Trichlorophenol	0.47	(IS)		0.25	"	0.6250	U	74.8%	51-117	17.4	30
2,4-Dinitrotoluene	0.43	(IS)		0.25	"	0.6250	U	69.2%	63-128	1.72	30
Hexachlorobenzene	0.62	(IS)		0.25	"	0.6250	U	98.8%	55-122	3.71	30
Pentachlorophenol	U	(CCV), (IS), UJ		0.25	"	0.6250	Rejected	%	60-120		30
Surrogate: Pyridine-d5	0.28	(IS)			"	0.6250		45.2%	20-71		
Surrogate: 2-Fluorophenol	0.55	(IS), Q			"	0.6250		87.6%	29-73		
Surrogate: Phenol-d5	0.47	(IS), Q			"	0.6250		75.6%	22-62		
Surrogate: Nitrobenzene-d5	0.59	(IS), Q			"	0.6250		94.0%	42-90		
Surrogate: 2-Fluorobiphenyl	0.62	(IS), Q			"	0.6250		98.8%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.52	(IS)			"	0.6250		84.0%	43-107		
Surrogate: Terphenyl-d14	0.60	(IS)			"	0.6250		95.6%	59-111		



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Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17E049 - Solvent Extraction

Matrix Spike Dup (B17E049-MSD2)		Source: 1705004-08		Prepared: May-26-17 Analyzed: Jun-10-17							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	0.29			1.3	mg/L	0.6250	U	46.0%	32-68	12.0	34
2-Methylphenol	0.42			0.25	"	0.6250	U	67.2%	26-107	8.00	30
3+4-Methylphenol	1.6			0.50	"	1.250	0.74	72.8%	29-101	0.763	30
Hexachloroethane	0.46			0.25	"	0.6250	U	73.2%	31-94	0.548	30
Nitrobenzene	1.0	Q		0.25	"	0.6250	U	162%	33-111	41.3	32
Hexachlorobutadiene	0.50			0.25	"	0.6250	U	80.8%	31-100	0.00	30
2,4,6-Trichlorophenol	0.49			0.25	"	0.6250	U	78.8%	42-112	12.4	30
2,4,5-Trichlorophenol	0.40			0.25	"	0.6250	U	64.0%	51-117	15.6	30
2,4-Dinitrotoluene	0.56			0.25	"	0.6250	U	90.0%	63-128	3.16	30
Hexachlorobenzene	0.52			0.25	"	0.6250	U	84.0%	55-122	5.10	30
Pentachlorophenol	0.35	Q		0.25	"	0.6250	0.14	32.4%	60-120	7.61	30
Surrogate: Pyridine-d5	0.32				"	0.6250		51.6%	20-71		
Surrogate: 2-Fluorophenol	0.45				"	0.6250		72.4%	29-73		
Surrogate: Phenol-d5	0.34				"	0.6250		54.4%	22-62		
Surrogate: Nitrobenzene-d5	0.61	Q			"	0.6250		97.6%	42-90		
Surrogate: 2-Fluorobiphenyl	0.58				"	0.6250		92.8%	40-93		
Surrogate: 2,4,6-Tribromophenol	0.43				"	0.6250		68.4%	43-107		
Surrogate: Terphenyl-d14	0.57				"	0.6250		91.2%	59-111		

Batch B17F036 - EPA 3580A solvent dilution

Blank (B17F036-BLK1)		Prepared: Jun-08-17 Analyzed: Jun-10-17									
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	U			100	mg/L						
2-Methylphenol	U			100	"						
3+4-Methylphenol	U			200	"						
Hexachloroethane	U			100	"						
Nitrobenzene	U			100	"						
Hexachlorobutadiene	U			100	"						
2,4,6-Trichlorophenol	U			100	"						
2,4,5-Trichlorophenol	U			100	"						



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Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17F036 - EPA 3580A solvent dilution

Blank (B17F036-BLK1)

Prepared: Jun-08-17 Analyzed: Jun-10-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
2,4-Dinitrotoluene	U			100	mg/L						
Hexachlorobenzene	U			100	"						
Pentachlorophenol	U	(CCV), UJ		250	"						
Surrogate: Pyridine-d5	250				"	250.0		102%	70-130		
Surrogate: 2-Fluorophenol	260				"	250.0		106%	70-130		
Surrogate: Phenol-d5	260				"	250.0		104%	70-130		
Surrogate: Nitrobenzene-d5	240				"	250.0		98.0%	70-130		
Surrogate: 2-Fluorobiphenyl	240				"	250.0		96.4%	70-130		
Surrogate: 2,4,6-Tribromophenol	230				"	250.0		91.6%	70-130		
Surrogate: Terphenyl-d14	230				"	250.0		91.2%	70-130		

Blank (B17F036-BLK2)

Prepared: Jun-08-17 Analyzed: Jun-10-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	U			100	mg/L						
2-Methylphenol	U			100	"						
3+4-Methylphenol	U			200	"						
Hexachloroethane	U			100	"						
Nitrobenzene	U			100	"						
Hexachlorobutadiene	U			100	"						
2,4,6-Trichlorophenol	U			100	"						
2,4,5-Trichlorophenol	U			100	"						
2,4-Dinitrotoluene	U			100	"						
Hexachlorobenzene	U			100	"						
Pentachlorophenol	U	(CCV), UJ		250	"						
Surrogate: Pyridine-d5	260				"	250.0		103%	70-130		
Surrogate: 2-Fluorophenol	250				"	250.0		100%	70-130		
Surrogate: Phenol-d5	250				"	250.0		101%	70-130		
Surrogate: Nitrobenzene-d5	240				"	250.0		96.8%	70-130		
Surrogate: 2-Fluorobiphenyl	240				"	250.0		97.6%	70-130		
Surrogate: 2,4,6-Tribromophenol	210				"	250.0		83.2%	70-130		
Surrogate: Terphenyl-d14	230				"	250.0		91.6%	70-130		



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Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17F036 - EPA 3580A solvent dilution

LCS (B17F036-BS1)

Prepared: Jun-08-17 Analyzed: Jun-11-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	250			99	mg/L	247.5		100%	70-130		
2-Methylphenol	250			99	"	247.5		103%	70-130		
3+4-Methylphenol	490			200	"	495.0		98.4%	70-130		
Hexachloroethane	240			99	"	247.5		98.8%	70-130		
Nitrobenzene	250			99	"	247.5		99.6%	70-130		
Hexachlorobutadiene	240			99	"	247.5		97.6%	70-130		
2,4,6-Trichlorophenol	240			99	"	247.5		96.4%	70-130		
2,4,5-Trichlorophenol	220			99	"	247.5		90.4%	70-130		
2,4-Dinitrotoluene	240			99	"	247.5		96.0%	70-130		
Hexachlorobenzene	250			99	"	247.5		99.6%	70-130		
Pentachlorophenol	82	(CCV), J, Q		250	"	247.5		33.2%	70-130		
Surrogate: Pyridine-d5	270				"	247.5		108%	70-130		
Surrogate: 2-Fluorophenol	260				"	247.5		105%	70-130		
Surrogate: Phenol-d5	280				"	247.5		113%	70-130		
Surrogate: Nitrobenzene-d5	250				"	247.5		101%	70-130		
Surrogate: 2-Fluorobiphenyl	240				"	247.5		97.2%	70-130		
Surrogate: 2,4,6-Tribromophenol	200				"	247.5		82.8%	70-130		
Surrogate: Terphenyl-d14	240				"	247.5		95.2%	70-130		

LCS Dup (B17F036-BSD1)

Prepared: Jun-08-17 Analyzed: Jun-11-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	260			100	mg/L	250.0		103%	70-130	3.76	30
2-Methylphenol	270			100	"	250.0		109%	70-130	7.03	30
3+4-Methylphenol	520			200	"	500.0		104%	70-130	6.91	30
Hexachloroethane	260			100	"	250.0		104%	70-130	6.12	30
Nitrobenzene	260			100	"	250.0		105%	70-130	6.46	30
Hexachlorobutadiene	260			100	"	250.0		103%	70-130	6.57	30
2,4,6-Trichlorophenol	250			100	"	250.0		101%	70-130	5.46	30
2,4,5-Trichlorophenol	240			100	"	250.0		98.0%	70-130	9.06	30
2,4-Dinitrotoluene	260			100	"	250.0		103%	70-130	7.83	30



Environmental Protection Agency Region5 Chicago Regional Laboratory

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Phone: (312) 353-8370 Fax: (312) 886-2591

RCRA, LCD, US EPA Region 5
77 West Jackson Boulevard
Chicago IL, 60604

Project: Mid America Steel Drum, Inc.
Project Number: MASD-05-04-17
Project Manager: Jamie Paulin

Reported:
Jul-21-17 12:11

Semivolatiles by GC/MS, EPA 8270D (modified) - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B17F036 - EPA 3580A solvent dilution

LCS Dup (B17F036-BSD1)

Prepared: Jun-08-17 Analyzed: Jun-11-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Hexachlorobenzene	270			100	mg/L	250.0		108%	70-130	8.72	30
Pentachlorophenol	74	(CCV), J, Q		250	"	250.0		29.6%	70-130	10.5	30
Surrogate: Pyridine-d5	260				"	250.0		104%	70-130		
Surrogate: 2-Fluorophenol	250				"	250.0		101%	70-130		
Surrogate: Phenol-d5	290				"	250.0		117%	70-130		
Surrogate: Nitrobenzene-d5	250				"	250.0		98.4%	70-130		
Surrogate: 2-Fluorobiphenyl	250				"	250.0		98.8%	70-130		
Surrogate: 2,4,6-Tribromophenol	200				"	250.0		78.8%	70-130		
Surrogate: Terphenyl-d14	250				"	250.0		98.4%	70-130		

MRL Check (B17F036-MRL2)

Prepared: Jun-08-17 Analyzed: Jun-10-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	49			99	mg/L	49.50		98.0%	70-130		
2-Methylphenol	48			99	"	49.50		96.0%	70-130		
3+4-Methylphenol	89			200	"	99.01		90.0%	70-130		
Hexachloroethane	49			99	"	49.50		98.0%	70-130		
Nitrobenzene	47			99	"	49.50		94.0%	70-130		
Hexachlorobutadiene	47			99	"	49.50		94.0%	70-130		
2,4,6-Trichlorophenol	43			99	"	49.50		86.0%	70-130		
2,4,5-Trichlorophenol	38			99	"	49.50		76.0%	70-130		
2,4-Dinitrotoluene	65	Q		99	"	49.50		132%	70-130		
Hexachlorobenzene	47			99	"	49.50		94.0%	70-130		
Pentachlorophenol	72	(CCV), J, Q		250	"	49.50		146%	70-130		
Surrogate: Pyridine-d5	260				"	247.5		106%	70-130		
Surrogate: 2-Fluorophenol	260				"	247.5		104%	70-130		
Surrogate: Phenol-d5	270				"	247.5		111%	70-130		
Surrogate: Nitrobenzene-d5	240				"	247.5		96.0%	70-130		
Surrogate: 2-Fluorobiphenyl	230				"	247.5		94.4%	70-130		
Surrogate: 2,4,6-Tribromophenol	210				"	247.5		86.4%	70-130		
Surrogate: Terphenyl-d14	230				"	247.5		93.2%	70-130		



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Batch B17F036 - EPA 3580A solvent dilution

Matrix Spike (B17F036-MS2)		Source: 1705002-08		Prepared: Jun-08-17 Analyzed: Jun-11-17							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	210			110	mg/L	264.8	U	80.8%	70-130		
2-Methylphenol	400			110	"	264.8	100	114%	70-130		
3+4-Methylphenol	570			210	"	529.7	U	108%	70-130		
Hexachloroethane	300			110	"	264.8	U	113%	70-130		
Nitrobenzene	270			110	"	264.8	U	103%	70-130		
Hexachlorobutadiene	310			110	"	264.8	U	119%	70-130		
2,4,6-Trichlorophenol	300			110	"	264.8	U	113%	70-130		
2,4,5-Trichlorophenol	280			110	"	264.8	U	104%	70-130		
2,4-Dinitrotoluene	290			110	"	264.8	U	110%	70-130		
Hexachlorobenzene	310			110	"	264.8	U	119%	70-130		
Pentachlorophenol	320	(CCV), J		260	"	264.8	U	120%	70-130		
Surrogate: Pyridine-d5	220				"	264.8		81.6%	70-130		
Surrogate: 2-Fluorophenol	260				"	264.8		98.8%	70-130		
Surrogate: Phenol-d5	260				"	264.8		100%	70-130		
Surrogate: Nitrobenzene-d5	290				"	264.8		108%	70-130		
Surrogate: 2-Fluorobiphenyl	280				"	264.8		106%	70-130		
Surrogate: 2,4,6-Tribromophenol	320				"	264.8		121%	70-130		
Surrogate: Terphenyl-d14	280				"	264.8		105%	70-130		

Matrix Spike (B17F036-MS3)		Source: 1705003-01		Prepared: Jun-08-17 Analyzed: Jun-11-17							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	280	(SURRE)		110	mg/L	279.3	U	102%	70-130		
2-Methylphenol	310	(SURRE)		110	"	279.3	U	109%	70-130		
3+4-Methylphenol	580	(SURRE)		220	"	558.7	U	104%	70-130		
Hexachloroethane	270	(SURRE)		110	"	279.3	U	96.8%	70-130		
Nitrobenzene	280	(SURRE)		110	"	279.3	U	99.6%	70-130		
Hexachlorobutadiene	300	(SURRE)		110	"	279.3	U	107%	70-130		
2,4,6-Trichlorophenol	470	(RES), (SURRE), Q		110	"	279.3	U	168%	70-130		
2,4,5-Trichlorophenol	450	(RES), (SURRE), Q		110	"	279.3	U	160%	70-130		
2,4-Dinitrotoluene	230	(SURRE)		110	"	279.3	U	82.0%	70-130		



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Batch B17F036 - EPA 3580A solvent dilution

Matrix Spike (B17F036-MS3)			Source: 1705003-01		Prepared: Jun-08-17 Analyzed: Jun-11-17						
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Hexachlorobenzene	290	(SURRE)		110	mg/L	279.3	U	104%	70-130		
Pentachlorophenol	U	(CCV), (SURRE), J		280	"	279.3	Rejected	%	70-130		
Surrogate: Pyridine-d5	1800	Q			"	279.3		646%	70-130		
Surrogate: 2-Fluorophenol	1800	Q			"	279.3		635%	70-130		
Surrogate: Phenol-d5	2000	Q			"	279.3		714%	70-130		
Surrogate: Aniline-d5	2000	Q			"	279.3		707%	70-130		
Surrogate: Nitrobenzene-d5	1700	Q			"	279.3		596%	70-130		
Surrogate: 2-Fluorobiphenyl	1700	Q			"	279.3		606%	70-130		
Surrogate: 2,4,6-Tribromophenol	1000	Q			"	279.3		365%	70-130		
Surrogate: Terphenyl-d14	1700	Q			"	279.3		626%	70-130		

Matrix Spike Dup (B17F036-MSD1)			Source: 1705002-02		Prepared: Jun-08-17 Analyzed: Jun-11-17						
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	220	Q		86	mg/L	215.5	U	102%	70-130	200	30
2-Methylphenol	290	Q		86	"	215.5	U	135%	70-130	200	30
3+4-Methylphenol	390	Q		170	"	431.0	U	90.8%	70-130	200	30
Hexachloroethane	200	Q		86	"	215.5	U	90.8%	70-130	200	30
Nitrobenzene	U	MI		86	"	215.5	Rejected	%	70-130		30
Hexachlorobutadiene	240	Q		86	"	215.5	U	112%	70-130	200	30
2,4,6-Trichlorophenol	240	Q		86	"	215.5	U	112%	70-130	200	30
2,4,5-Trichlorophenol	230	Q		86	"	215.5	U	108%	70-130	200	30
2,4-Dinitrotoluene	230	Q		86	"	215.5	U	108%	70-130	200	30
Hexachlorobenzene	230	Q		86	"	215.5	U	108%	70-130	200	30
Pentachlorophenol	110	(CCV), J, Q		220	"	215.5	U	51.6%	70-130	200	30
Surrogate: Pyridine-d5	210				"	215.5		98.0%	70-130		
Surrogate: 2-Fluorophenol	220				"	215.5		104%	70-130		
Surrogate: Phenol-d5	210				"	215.5		99.6%	70-130		
Surrogate: Nitrobenzene-d5	1400	MI, Q			"	215.5		651%	70-130		
Surrogate: 2-Fluorobiphenyl	220				"	215.5		102%	70-130		
Surrogate: 2,4,6-Tribromophenol	220				"	215.5		103%	70-130		
Surrogate: Terphenyl-d14	220				"	215.5		102%	70-130		



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Batch B17F036 - EPA 3580A solvent dilution

Matrix Spike Dup (B17F036-MSD2)		Source: 1705002-08		Prepared: Jun-08-17 Analyzed: Jun-11-17							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	210			110	mg/L	267.4	U	77.2%	70-130	3.60	30
2-Methylphenol	390			110	"	267.4	100	108%	70-130	3.63	30
3+4-Methylphenol	570			210	"	534.8	U	107%	70-130	0.347	30
Hexachloroethane	300			110	"	267.4	U	110%	70-130	1.55	30
Nitrobenzene	270			110	"	267.4	U	102%	70-130	0.568	30
Hexachlorobutadiene	290			110	"	267.4	U	110%	70-130	7.10	30
2,4,6-Trichlorophenol	300			110	"	267.4	U	113%	70-130	0.958	30
2,4,5-Trichlorophenol	280			110	"	267.4	U	104%	70-130	0.958	30
2,4-Dinitrotoluene	300			110	"	267.4	U	114%	70-130	4.17	30
Hexachlorobenzene	300			110	"	267.4	U	111%	70-130	6.01	30
Pentachlorophenol	290	(CCV), J		270	"	267.4	U	108%	70-130	9.90	30
Surrogate: Pyridine-d5	210				"	267.4		77.6%	70-130		
Surrogate: 2-Fluorophenol	270				"	267.4		100%	70-130		
Surrogate: Phenol-d5	270				"	267.4		100%	70-130		
Surrogate: Nitrobenzene-d5	280				"	267.4		106%	70-130		
Surrogate: 2-Fluorobiphenyl	280				"	267.4		105%	70-130		
Surrogate: 2,4,6-Tribromophenol	320				"	267.4		118%	70-130		
Surrogate: Terphenyl-d14	280				"	267.4		106%	70-130		

Matrix Spike Dup (B17F036-MSD3)		Source: 1705003-01		Prepared: Jun-08-17 Analyzed: Jun-12-17							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pyridine	310			110	mg/L	285.1	U	109%	70-130	8.85	30
2-Methylphenol	300			110	"	285.1	U	106%	70-130	0.566	30
3+4-Methylphenol	600			230	"	570.1	U	106%	70-130	3.56	30
Hexachloroethane	300			110	"	285.1	U	106%	70-130	11.1	30
Nitrobenzene	320			110	"	285.1	U	113%	70-130	14.8	30
Hexachlorobutadiene	310			110	"	285.1	U	109%	70-130	3.51	30
2,4,6-Trichlorophenol	420	(RES), Q		110	"	285.1	U	146%	70-130	12.5	30
2,4,5-Trichlorophenol	450	(RES), Q		110	"	285.1	U	160%	70-130	1.78	30
2,4-Dinitrotoluene	220			110	"	285.1	U	77.2%	70-130	4.00	30



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Batch B17F036 - EPA 3580A solvent dilution

Matrix Spike Dup (B17F036-MSD3)

Source: 1705003-01

Prepared: Jun-08-17 Analyzed: Jun-12-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Hexachlorobenzene	300			110	mg/L	285.1	U	106%	70-130	3.55	30
Pentachlorophenol	U	(CCV), J		290	"	285.1	Rejected	%	70-130		30
Surrogate: Pyridine-d5	280				"	285.1		97.2%	70-130		
Surrogate: 2-Fluorophenol	300				"	285.1		106%	70-130		
Surrogate: Phenol-d5	330				"	285.1		115%	70-130		
Surrogate: Nitrobenzene-d5	290				"	285.1		100%	70-130		
Surrogate: 2-Fluorobiphenyl	290				"	285.1		102%	70-130		
Surrogate: 2,4,6-Tribromophenol	180	Q			"	285.1		64.8%	70-130		
Surrogate: Terphenyl-d14	280				"	285.1		99.2%	70-130		



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Notes and Definitions

UJ	The analyte was not detected at or above the reported limit. The reported limit is an estimate.
R	Rejected
MI	Matrix interference
J	The identification of the analyte is acceptable; the reported value is an estimate.
(TF)	Tailing factor criteria not met, which may affect measurement of this analyte
(SURR)	Associated surrogate recovery criteria not met for this analyte
(RL)	RL verification criteria not met for this analyte.
(RES)	Resolution criteria for isomer peaks not met for this analyte.
(MS)	Matrix spike recovery criteria not met for this analyte
(LCS)	Blank spike recovery criteria not met for this analyte
(IS)	Internal standard criteria not met for this analyte
(H)	Holding time exceeded for sample preparation and/or analysis; Target analyte concentrations and/or reporting limits may not be accurate
(CCV)	Continuing calibration verification criteria not met for this analyte
U	Not Detected
NR	Not Reported
Q	QC limit Exceeded